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NATIONAL MUNICIPAL LEAGUE MONOGRAPH SERIES

PUBLIC BORROWING

BY

PAUL STUDENSKY, Ph. D.

LECTURER ON PUBLIC FINANCE, NEW YORK UNIVERSITY

WITH A

FOREWORD

BY

EDWIN R. A. SELIGMAN

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EDITOR'S PREFACE

In the financing of permanent improvements, most governments are today between the proverbial upper and lower millstones; they are restricted in their borrowing capacity by constitutional or statutory debt limits, and they are, on the other hand, prevented by tax limits from defraying the costs of permanent improvements from current revenues. This present discussion of *Public Borrowing* is therefore believed to be both timely and worth while. The author, Dr. Paul Studensky, has written much and studied long in the field of public finance, and is thoroughly versed in the subject of public borrowing.

This work is more than a discussion of the history and development of public indebtedness. The consequences of an unsound and unrestricted borrowing policy; the effects of debt limits; the proper term of loans; and the beneficial results of consolidation and long-term budgeting of bond issues; and the expansion of public improvement expenditures in times of depression are carefully and clearly set forth. After explaining the various existing schemes for financing permanent improvements by a combination of current revenues and loans, Dr. Studensky advocates a plan for combining borrowing with taxation, which cannot fail to stimulate further discussion, and perhaps lead to important changes in existing procedure.

The manuscript for *Public Borrowing* was prepared in 1925-26 while the author was a staff member of the National Institute of Public Administration. It has been rewritten, revised, and brought down to date, since that time.

The thanks of the author and the publisher are hereby extended to the following students of public finance who have read the manuscript and offered many helpful suggestions for its revision and improvement: Luther Gulick, A. E. Buck and Philip H. Cornick of the National Institute of

Public Administration; Francis Oakey, comptroller of the New York Life Insurance Company; John S. Rae, director of the Erie County (Pa.) Taxpayers' Association; C. E. Rightor, chief accountant of the Detroit Bureau of Governmental Research; and T. David Zukerman, of the Political Research Bureau of New York City. Arthur Collins, of London, financial adviser to local government authorities in Great Britain, has supplied valuable information concerning British practice in consolidating loan funds. E. R. A. Seligman, McVickar Professor of Political Economy at Columbia University, has not only contributed the foreword to the volume, but has also offered suggestions which were helpful in its preparation. The author has received much help from both the division of economics and the municipal reference division of the New York Public Library.

RUSSELL FORBES, *Editor.*

FOREWORD

For not a few years the pay-as-you-go theory has been in the forefront of public discussion in the United States. Unfortunately, most of the scientific treatises on public credit have devoted but little attention to this topic. It is with all the more interest, therefore, that we ought to greet this work of Dr. Studensky which is not only thorough and scholarly but which serves to put the discussion of the whole subject on a distinctly higher plane than has hitherto been customary.

There have been so many abuses connected with the exercise of public credit that not a few thinkers and not a few statesmen have gone to the regrettable extreme of opposing public borrowing in general and of failing to distinguish between the use and the abuse of public credit. Dr. Studensky's work is of value because it seeks to make this distinction. His analysis is acute and in some respects profound; and while his own particular plan may perhaps not command universal assent, he has put all students of public finance under a distinct obligation in his lucid and far-reaching analysis of the relevant factors of the situation. The study ought to go far to dispel many prevalent misconceptions and it will undoubtedly lead to a more careful and unprejudiced analysis of the entire subject.

EDWIN R. A. SELIGMAN.

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CHAPTER I

THE DEVELOPMENT AND PRESENT SCOPE OF PUBLIC BORROWING

All governments borrow money, either regularly or irregularly, on an extensive scale. Their borrowings generally fall into two classes: those of a temporary character covering a period of a few months; and those of a more lasting character extending over a term of years.

Temporary borrowing is generally the means for enabling the government to meet its expenditures during the period of the fiscal year before the taxes become payable, pending the issue of long-term bonds, or to cover a deficit created in the budget by an unforeseen emergency. The debts created by this type of borrowing are usually repaid the same year, or, at the latest, in the beginning of the next year when the funds of the government have been replenished by the taxes collected, by the issue of long-term bonds, or when an appropriation to cover the deficit has been made. There has been a marked tendency in state and municipal financing in recent years towards a reduction of the volume of temporary loans. This has frequently been accomplished by the advancement of the date of collection of taxes nearer the beginning of the fiscal year.

Loans of the second type are generally contracted to provide the government with additional funds over and above its regular revenues, and to enable it to make larger expenditures than would otherwise be possible. The loans secured by such borrowing are repaid from the revenues of future years.

Of the two types of borrowing, only the second will be considered in this study, for it alone leaves a relatively permanent mark on the finances of the government, and involves broad issues. Furthermore, only that class of

borrowing will be considered which is used for financing "permanent improvements," sometimes called "capital expenditures." Borrowing applied to the financing of operating costs and borrowing for war expenditures will be left out of consideration: the first is generally considered unwise, is prohibited in many states by constitutional and statutory provision, and is, on the whole, rapidly decreasing; borrowing for war expenditures is in a class by itself and represents a separate problem.

The "permanent improvements" for which loans are contracted consist of public works and the construction and acquisition of properties which are likely to last a number of years. Their permanency, in other words, is *relative*, not *absolute*. The term "permanent improvement" is somewhat misleading. "Lasting improvements" would have been more appropriate, though this term also is capable of some misunderstanding. Accountants use the term "capital outlays," but this term itself requires definition. For want of a clearer phrase, the term "permanent improvements" will consequently be retained in the present discussion.

THE ORIGIN OF PUBLIC BORROWING

Public borrowing is a relatively recent institution, accepted and established generally throughout the world for scarcely two and one-half centuries. Governments in the Middle Ages and even in ancient times borrowed from time to time, but these instances were rather crude in character and embodied relatively few if any of the significant characteristics of modern borrowing.

The sovereigns during the Middle Ages borrowed when they needed money, from their noble vassals, from the rich merchants who had all kinds of coins, and finally from professional money lenders, when these appeared on the scene. They borrowed, in other words, on their personal credit from small groups of wealthy men and not from the "public" which was impecunious. They often bothered little

about repayment of their debts, and repudiated them freely or dealt summarily with those creditors who demanded payment. Some of the lenders of money managed to distribute their loans to the sovereigns over a more or less wide circle of people. The loans incurred in later periods and in the more civilized countries naturally took more advanced forms than the loans incurred in the early periods and in the less civilized nations. Out of these early forms developed eventually the modern institution of public borrowing. That public borrowing is a recent practice, associated with the development of modern credit, is acknowledged by the financial writers generally. Leon Say takes issue with this statement; but even he is forced to acknowledge that there is something new in public borrowing. "What is new in it," he says, "is not the public character of the loans, but the presence in it of the two basic elements of credit—confidence and existence of free capital. The realization of these two elements belongs to the modern period and in that sense it is possible to say that public credit is founded in our days."¹

Public borrowing became extensive and systematic toward the close of the seventeenth century when the great states which emerged from the Middle Ages—France, England, Spain, Holland and others—began to wage wars against each other on a large scale, and with a new object—destroying each other's trade; and when the money economy became finally established following the discovery toward the close of the preceding century, of gold and silver in South America. The modern technique of borrowing, by the issuance of bonds to the people, had its origin in that period.²

¹ Translated from manuscript in *Volkswirt. Vierteljahrsschr. Jahrg. XXI.* I, pp. 1-2. For a history of public borrowing see R. Dudley Baxter's *National Debts*, 1870; Leone Levi's article in the *Journal of the Royal Statistical Society*, 1862; L. V. Birck's *Public Debt*, 1926, chapters 15 to 21; A. Vührer's *Histoire de la Dette Publique en France*, 1886, two volumes; and A. N. Sack's *La Succession aux Dettes Publiques d'Etat*, chapter II.

² Netherlands was the first, among the great powers, to begin to borrow systematically and in the modern way, in the seventeenth century. By 1650

The practice of borrowing for permanent improvements developed later, and was in a way an extension of the other practice. Having borrowed in war-time, it was natural for the governments to resort to the same expedient in peace-time whenever the regular revenues seemed insufficient for necessary expenditures. It was also natural for local governments, which were not concerned with war expenditures or were concerned with them only very slightly, to seek relief from their ordinary expenditures in borrowing.¹ In resorting to this expedient in these cases, the governments followed, naturally, the technique of borrowing which had been evolved in war financing.

PUBLIC BORROWING IN THE UNITED STATES

Borrowing in this country followed substantially the same course. It was resorted to at first for war purposes only, and even then has become important only since the establishment of this country as an independent nation. Before that time, the defense of this country was very largely taken care of by England, and such expenditures as the colonies

it had a large debt, and was striving hard to reduce the interest charges (and also the principal of the debt) by means of refunding operations. Although public borrowing in France is traced by some writers back to the Rentes (annual interest payments by the State) created by Charles V in 1375, and by some writers even farther back, it is generally agreed that it assumed large proportions in its modern form first under the régime of Louis XIV. The national debt on his demise in 1715 amounted to \$584,000,000. "A national bankruptcy was then fully anticipated," says Levi, "and St. Simon did not scruple to make a formal proposal to that effect though he was not seconded by the Prince Regent." England's national debt (as distinguished from the private debts of the sovereigns) is generally counted from the Revolution of 1688 when \$3,000,000 was borrowed. In 1691, it amounted to \$15,000,000; in 1714, to \$176,000,000. The war with France brought it, in 1763, to \$665,000,000; the American war, to \$1,400,000,000; the Napoleonic Wars, to almost \$4,000,000,000 (Levi and Baxter, *op. cit.*).

¹ The era of municipal borrowing in England began in the eighteenth century. J. R. Johnson, in *Loans and Local Authorities in England*, traces the first grants of borrowing powers to local authorities in England to the local acts creating improvement commissioners, passed by Parliament during that century. The amounts for which the local authorities were allowed to borrow were in each instance specified in the act.

themselves had to make for the purpose were often met by the simple expedient of issuing paper money.¹

There was little need for borrowing for permanent improvements in this country during the colonial days and the first forty years of the Republic. In the early days of their existence, the governments in this country were rarely called upon to make large expenditures for permanent improvements. Their activities were few in number and relatively simple in nature, and could be performed with little equipment or plant facilities. The few permanent works which had to be executed, such as the building of roads, bridges and streets, and construction of some public buildings, were frequently executed by resort to forced or voluntary labor of the citizens; and the few expenditures which had to be made were financed either from current taxation, from the sale of public land, or from donations, voluntary subscriptions, and lotteries secured or arranged for that purpose.² Even ordinary expenditures

¹ Some writers, such as Dewey and Raymond, are inclined to regard the paper money or bills of credit issued by the colonies in 1690-1775 as, in part at least, forms of public loans. The resemblance, however, is too slight to justify such treatment of them. The cities which in the early days had to provide for their own defense and contribute to the expenditures of war had no such simple expedient at their disposal. They could not, consequently, escape borrowing sometimes for war expenses. The city of New York, for example, had to incur several loans in the middle of the eighteenth century (and one even in the middle of the seventeenth) for the construction of fortifications, jails for war prisoners, and the purchase of arms. (See A. E. Paterson and G. W. Edwards' *New York as a Seventeenth Century Municipality*, pp. 400-03, and E. D. Durand's *Finances of the City of New York*, chap. 1.) The early loans were incurred from individual wealthy citizens or financiers. Bonds were issued, for securing a wider distribution of loans, for the first time in this country during the Revolutionary War. The national debt in 1790, by the close of the Revolution and confederation, amounted to \$54,000,000. In addition, the states had a debt of \$18,-000,000 which the national government took over that year, bringing the total national debt to approximately \$72,000,000. By this assumption, the states were left free from debt.

² A number of roads were built in New Jersey during the colonial period by means of subscriptions, donations and lotteries authorized for the purpose by the state. Even state buildings were erected in New Jersey from proceeds of lotteries. The state house was built, in 1795, in this way (Shaw's *History of Essex and Hudson Counties*, vol. II, chap. 24). In Philadelphia, "by an old law of the province," say Allison and Penrose in their *Phila-*

were then financed in a large measure by the sale of land, the people preferring this device to taxation. In this way the colonies and, later, the states and the cities divested themselves of practically all their holdings. In a word, permanent improvements were executed in those days without the contraction of loans.¹

Later came a stage of more rapid development. The economic development of the country, the state, or local community began to proceed at a more rapid pace and to demand a similar quickening in the pace of government activity. The industrial revolution brought with it concentration of people in cities and brought many new problems demanding governmental attention. The states had to undertake the construction of canals and roads, and to grant subsidies to railroad and banking ventures, in order that industry and commerce would be furthered within their borders. Private enterprise was thought inadequate to the task. The cities had to construct public water supplies as the people could no longer supply themselves from private wells; they had to build bridges of substantial size and pave streets in order to facilitate commerce and the spread of population; and to dig drains and lay sewers in order to relieve the thickly-settled portions of their territory of the

delphia, 1681-1887, p. 30, "the inhabitants could be compelled in the seventeenth and eighteenth centuries to furnish labor for the repair of highways, but as money was much more necessary than labor, it was ordered by the common council in 1711 . . . that instead of a day's labor any person might pay 1s. 6d. . . . As the streets continued in a wretched condition and received little attention at the hands of the corporation, . . . many of the inhabitants, in 1718, voluntarily paved 'from ye kennel to the middle of the street' before their respective tenements with pebble stones."

¹ The old city of New York built its early fortifications and, in 1804, its city hall, with the aid of money secured from the sale of land. (See E. D. Durand's *Finances of the City of New York*, p. 18, and Black's *Municipal Ownership of Land on Manhattan Island*, pp. 22-24.) Some authorities take the view that it was a mistaken policy to have disposed of the land in this way; that some of it should have been kept in the public hands, and used for various public purposes. Millions of dollars which had to be spent later on by the states and cities for the purchase of sites for their various activities would have been saved in that way. (For comments on the English experience in the matter, see J. R. Johnson's *Loans and Local Authorities in England*, p. 23.)

filth which was accumulating there, breeding disease. They had to build more capacious city halls and public markets. They had to build, finally, public schools.¹

The state and local governments thus found themselves confronted suddenly with the necessity of providing extensive plant and elaborate equipment and acquiring to that end large properties. To do this, they needed "capital" on a large scale.

Where could this capital be obtained? It could not be raised from current revenues. No additional levies could be imposed large enough to provide it, without immediately resulting in oppressive taxation. Lotteries and donations could not possibly supply the needed sum, nor could it be supplied from the sale of land. Only one avenue was open—borrowing. Laws were passed by the legislatures providing for the issuance of bonds by the state and by municipalities which applied to the legislature for bonding power. Every time the state or a local government wanted to borrow, a special law had to be passed, specifying the object and amount of the loan.

Instances of large borrowings were relatively few in number. They were separated by intervals of time and each of them stood apart. They constituted relatively extraordinary events in the life of the community.

History of State Borrowing. State borrowing for permanent improvements and not merely for war expenditures really began in this country only some time after 1820. Precipitated in the era of intense speculation of the thirties, it reflected all the excesses of that period. Loans were incurred for questionable enterprises, money was spent without restraint, and there was much downright fraud. Fre-

¹ In many states and cities education was not made truly public until the forties or even fifties. In reality it was education for the children of the poor. Such schools as were provided were mostly kept in rented quarters. In New York City the schools were managed by a "Public School Society," a private philanthropic body, and were brought under city management only in 1842 when a board of education was established. The establishment of schools on a large scale and the provision of suitable quarters for them began everywhere, in the cities, at about that time.

quently no provision was made for the payment of interest and principal of the loan; but, instead, new loans were incurred for their payment. Thus debt was pyramided upon debt. The trend of borrowing in the states in this period is shown in Table I.

TABLE I
STATE INDEBTEDNESS IN 1820-38¹

Years	Amount of bonds issued (in millions of dollars)	Objects of indebtedness	Net indebtedness in 1838 (in millions of dollars)
1820-25.....	13	Canals	60
1825-30.....	14	Aid to railroads.....	43
1830-35.....	40	Turnpikes	7
1835-38.....	108	Banking	53
		Miscellaneous	8
Total.....	175	Total	171

This venture of the states into borrowing for "internal improvements" ended, after the crisis of 1837, in financial disaster. State after state found itself unable in the forties to meet its obligations and was forced to wind up its enterprises with a great financial loss.² Under such conditions, a reaction naturally set in. The power to borrow, except to defend the state in time of war or insurrection, was taken away from the state legislature and either completely eliminated from state powers or reserved to the people under a provision calling for a referendum in each case. Taxation was established, by constitutional provision, as the only regular means of state financing. Private enterprise was thenceforth to carry on the work of "internal improvements" in these states in a way most profitable to itself without state interference, competition, or direct subsidy. A policy of opposition to borrowing, which became known later as the "pay-as-you-go" policy, was thus combined

¹ Compiled from the United States Census of 1880, vol. VII, *Wealth, Debt, and Taxation*.

² See Chapter III below.

with the policy of *laissez faire*, to which public sentiment had swung as a result of the excesses of state activity described.

The newer Western and Southern states took up borrowing in the fifties with more or less similar results, and later wrote similar restrictions in their constitutions. By 1857, restrictions of the type described were a part of practically all the state constitutions in this country.¹

During the Civil War nearly all states borrowed for war purposes. The Southern states, which had suffered greatly from the war and needed capital for reconstruction which private enterprise could not supply, borrowed also during the first decade or so after the Civil War.

Having been barred from engaging in public enterprises, the states then became concerned with social welfare and higher or special education. Since the local communities and counties, which theretofore were attending to all social welfare matters under the laws of the state, had everywhere neglected their function, the states began to build and maintain institutions for the care of the unfortunates and delinquents. Soon every state became engaged in such work. The Morrill Act, passed by Congress in 1862, granted to the states vast tracts of public lands to be sold or leased to establish and maintain agricultural and industrial colleges. Some states, particularly in the South and in the West, went beyond the purposes of this enactment and established state universities. A few of the states proceeded again with the improvement of canal properties, but they borrowed relatively little for the purpose.

Indeed, the last three and one-half decades of the nineteenth century were marked by relatively little state borrowing. Since the states paid off their old debts and incurred relatively few new ones, the total state indebtedness decreased. In 1890 the total state indebtedness was only a little more than it was in 1841, as can be seen from Table II,

¹ Constitutional and statutory restrictions on debts are discussed in full below in Chapter IV.

although the population and wealth of the country had in the meanwhile greatly increased. The per capita state indebtedness decreased from \$9.14 in 1870 to \$2.80 in 1895, and was only slightly higher in 1902.

There was little state borrowing during the first decade and the larger part of the second decade of the present century. The per capita state debt increased from \$2.99 in 1902 to only \$3.75 in 1915, and to \$4.44 in 1919. As late as 1914 a writer on constitutional debt restrictions deplored the "stalled financial policy" of the states.¹

But then, following the World War, came a revolution in state policy—from *laissez faire* to extensive state activity. This was caused by: the revolutionary changes which were taking place in industry and transportation and the great expansion thereof; the great increase in the manufacture and use of the automobile; the spread of prosperity; the consequent demand for more and better roads, scenic parkways, forest preserves, conservation, agricultural relief, higher public education, better institutional care, and increased governmental services generally; the inability of local government to meet these various needs; and the consequent demand that the larger units—the states—supply them. To enable the states to assume these functions, it was necessary to restore to them the power to borrow. This was done, and the constitutional restrictions which had stood guard so many years were swept aside or were partially removed.

The indebtedness of the states increased from \$466,875,024 in 1919 to \$1,327,514,422 in 1926, and from a per capita of \$4.44 to \$11.46, during this period.

Municipal Borrowing and the "Pay-as-you-go" Movement. Municipal borrowing followed a somewhat different course. It began on a substantial scale a decade or two after state borrowing began, when the cities started to grow rapidly and large capital outlays for water supply and

¹ Secrist, *An Economic Analysis of the Constitutional Restrictions Upon Public Indebtedness in the United States*, p. 42.

other works became necessary. Municipal debt amounted in 1840 to scarcely \$20,000,000,¹ which, compared with state indebtedness, was very little. It proceeded at a fairly rapid rate during the forties and fifties, reaching the sum of \$200,000,000 by 1860, which was almost as much as the state indebtedness at that time.

The decade following the Civil War was an era of great industrial expansion. Municipal enterprise, along with private enterprise, was drawn into the whirlpool of inflation. The cities engaged in dreams of metropolitan greatness and, like the states in the inflation of the thirties, indulged in various speculative enterprises, and borrowed to excess and often without proper provision for the payment of interest and principal of the debt. They competed with each other for railroad transportation as a means of achieving greater growth, and subscribed freely for railroad stock. They borrowed for the paving and sewerage of streets and water supply on a large scale. They borrowed for ordinary expenses, letting taxes go delinquent to a large extent, and for the payment of interest and principal of the loans. Much of the borrowed money found its way into the pockets of grafting officials and contractors, with the result that the cities had often little to show for some of their debts. The total indebtedness of cities in New York amounted to 10 per cent, and in New Jersey to more than 11 per cent, of the assessed value of all real and personal property in the state. Many cities issued bonds in excess of 25 per cent, and some even in excess of 100 per cent of their assessed values. Taxes soared to unheard-of heights.² Municipal indebtedness in the country reached, in 1880, the sum of

¹ The systematic collection and compilation of the financial statistics of cities by the United States Census Bureau began in 1870. The only figure on municipal indebtedness prior to that, as announced by the Census Bureau for the year 1843, was \$27,500,000 (United States Census, 1880, vol. VII, *op. cit.*).

² Sechrist, *op. cit.*, p. 61; Bradstreet's editorial on "Devastation in New Jersey," May 5, 1880, p. 5. Newark's debt in 1880 equalled 15 per cent of the assessed value; Jersey City's, 25 per cent; Elizabeth's, 50 per cent; Rahway's, 60 per cent.

\$728,000,000. This was three times that of state indebtedness—and this despite the fact that the states had borrowed heavily for the financing of the Civil War.

The crisis of 1873-74 precipitated a reaction to this “insanity of borrowing.” Constitutional and statutory restrictions were adopted in most states, which curbed borrowing at once.¹ The lending of municipal credit to private enterprise was prohibited; borrowing for any purpose was restricted to a specified percentage of assessed value; the municipal councils were prohibited from issuing bonds except with the approval of the people in each case; no bonds could be issued for longer than certain specified terms; the levying of an annual tax sufficient to take care of interest charges and to amortize the debt at maturity was prescribed in the case of each loan; the issuance of refunding bonds was often prohibited or restricted; and the maintenance of floating debts was proscribed.²

In many cases, even before the adoption of these constitutional and statutory restrictions, public sentiment forced upon municipal officials a policy of “pay-as-you-go.” But the adherence to this policy was in most cases short lived, embracing little more than ten or fifteen years (1874-1890). The people demanded improvements and the cities began to borrow anew, though in a more sane and orderly way.

Municipal borrowing nearly doubled in amount from 1890 to 1902, as can be seen from Table II. It grew slowly from 1911 to 1919 because of debt limits, the tightening of the money market, the War, and other conditions described below. But in 1926 municipal indebtedness was more than six times that of state indebtedness, even though the latter, too, has been increasing in recent years.³

¹ Prior to the seventies, there were no constitutional restrictions against municipal debt, except in Ohio and two or three other states.

² Restrictions on municipal debt are discussed and appraised below in Chapter IV.

³ The per capita net indebtedness of 146 cities of more than 30,000 population increased, 1903-1911, from \$44.71 to \$67.52; 1911-1919, from \$67.52 to only \$81.18; 1919-1926, from \$81.18 to \$128.18.

TABLE II

GROWTH OF PUBLIC INDEBTEDNESS IN THE UNITED STATES FROM
1790 TO 1927 (IN MILLIONS OF DOLLARS)¹

Year	National	State	County	Municipal	Total	National wealth	Per cent ratio of debt to national wealth.
1790....	\$75	...	...	...	\$75	...	...
1800....	83	...	...	...	83	...	...
1810....	48	...	...	...	48	...	...
1820....	90	...	...	...	90	...	...
1830....	39	\$26	...	...	65	...	...
1840....	5	175 ²	...	\$20 ³	195	...	...
1850....	68	190	...	...	...	...	...
1860....	90	257	...	200 ⁵	547	...	...
1870....	2,353	353	\$188	328	3,222	...	...
1880....	2,055	275	124	725	3,179	\$43,642	7.3
1890....	852	211	145	781	1,989	65,037	3.1
1902....	969	235	197	1,433	2,834	88,517 ⁶	3.2
1912....	1,028	346	372	3,105	4,851	187,739	2.6
1922....	22,156	936	1,273	6,481	30,846	320,804	9.6 ⁷
1926....	19,573	1,328		9,475	30,376	342,471	8.8
1927....	18,422	1,445		10,185	30,052	336,125	8.9

¹ The indebtedness shown is net indebtedness. Compiled from United States Census Bureau's reports on *Wealth, Debt, and Taxation* of 1880 (pp. 274 and 281), 1890, 1902, 1913 and 1922 (p. 19 of part dealing with national wealth and p. 10 of part dealing with public debts); the United States Census Bureau's report on *Financial Statistics of States*, 1922, 1925-1927; and from following publications of the National Industrial Conference Board: *Tax Burdens and Public Expenditures*, 1925, p. 67; *Cost of Government in the United States, 1925-1926*, p. 62; *Cost of Government in the United States, 1926-1927*, pp. 37 and 47; and *Bulletin*, June, 1928, p. 143.

² Estimated from the figures for 1839 and 1841, which are given as \$167,728,390 and \$189,910,399, respectively (United States Census, 1880, vol. VH, p. 281).

³ Estimated from the figure given for 1843—\$27,536,422 (United States Census, 1880, vol. VII, p. 281).

⁴ No data.

⁵ Estimated.

⁶ The National Industrial Conference Board estimated the national wealth for 1902 at \$97,810,000,000 and arrived at a per cent ratio of public debt to national wealth of 2.9 (*Tax Burdens and Public Expenditures*, 1925, p. 67).

⁷ As a partial offset to the national indebtedness, there was outstanding at the time a debt from foreign nations to the United States, the principal of which amounted to almost ten billion dollars.

TABLE III
PER CAPITA NET DEBT¹

Year	National	State	Local	Total
1870.....	\$60.96	\$9.14 ²	\$13.37	\$83.47
1880.....	40.94	4.52 ²	16.37	61.83
1890.....	13.60	3.37	14.79	31.76
1902.....	12.22	2.99	20.74	35.93
1913.....	10.59	3.57	35.81	49.97
1922.....	203.78 ³	8.64	71.32	283.70
1925.....	177.11	10.40	75.10	262.60
1926.....	166.71	10.88	80.74	258.33
1927.....	155.41	12.18	84.47	252.06

The per capita indebtedness of the cities of more than 30,000 population has increased more rapidly and has assumed larger proportions than the indebtedness of any other unit of government except the federal government, as may be seen from Table IV.

TABLE IV
PER CAPITA INDEBTEDNESS OF 146 CITIES OF MORE THAN
30,000 POPULATION⁴

Year	Per capita indebtedness
1905.....	\$50.94
1915.....	77.86
1922.....	97.57
1927.....	134.27

THE THEORY OF PUBLIC BORROWING

State and local governments borrowed for the financing of permanent improvements because there seemed no other way of raising the necessary funds, and also because it seemed the most appropriate way of raising them. The objections to this "untried and dangerous expedient" were combated with effective arguments that it would work a lasting benefit to the community and constituted a perfectly

¹ Compiled from same sources as Table II. The estimates of the National Industrial Conference Board for 1913 and 1922 differ from the estimates of the United States Census Bureau and are as follows: 1913, state \$2.98, local \$30.13; 1922, state \$8.00, local \$58.10.

² The large per capita indebtedness was caused by the Civil War debts.

³ See footnote 7 in Table II.

⁴ From United States Census Bureau, *Financial Statistics of Cities*, 1927.

legitimate and sound method of financing such improvements. A theory was thus developed in justification of borrowing.

It was contended, first of all, that the expenditures for permanent improvements were different from expenditures for current expenses because the improvements were extraordinary in character and as such should be financed by means of loans. The contention seemed to be well founded. Such expenditures were usually large, much larger than any individual item of expenditure for current operations. Secondly, they were not expected to recur, as were the others. Thirdly, they seemed to have no relation to the necessities of the fiscal year in which they happened to occur. The improvements could not usually be completed in the current year. The benefits to be secured from them were to accrue mostly in the future. In the fourth place, the objects of expenditure in each case were tangible things such as a schoolhouse, a city hall, or a bridge, and not such things as salaries to officials, supplies, or the more minute and less definable things which constituted the object of the other expenditures. Each object seemed to stand by itself and to invite separate consideration. As expenditures of this nature, once made, were not expected to recur for some time, if ever, it was not thought necessary to establish a permanent staff for the execution of the work involved. The work could be executed, in each case, under the contract system. Fifthly, the expenditure, in each case, had to be computed for the entire work. How much of it would have to be made this year, and how much the next, often could not be determined. The expenditure could not be planned, as could other expenditures, on an annual basis. These and other arguments tended to establish in the minds of the people the extraordinary nature of expenditures for permanent improvements.

It was contended also that such expenditures would benefit future generations as much as the present generation; that future generations should consequently be made to

contribute to their defrayment; and that this could be accomplished only if the expenditures were financed by means of loans payable in the future. Furthermore, it was argued, the stability of business depended upon a stable tax rate which it was possible to maintain only by borrowing.

It was contended, finally, that all the money needed for expenditures of this kind should be in hand before the construction began, lest the work be delayed or remain uncompleted because of change of mind of the administrators. Only by borrowing, it was argued, could all the funds be thus secured and the completion of the work assured.

Borrowing was thus justified on four grounds: (1) that the expenditures for permanent improvements are extraordinary; (2) that they benefit the future and should be assessed, through a scheme of borrowing, on future generations; (3) that a uniform tax rate should be maintained from year to year, and this could be achieved only by loans; and (4) that funds for the execution of the improvements should be secured before the work is actually begun. A number of minor arguments were also advanced: that expenditures of this nature are investments; that private enterprise borrows for its capital expenditures; and that capital expenditures should be financed from the capital of the community and not from its income. In the case of revenue-producing improvements, such as water works, it was claimed that the bulk of the loan would be repaid from the revenues of the enterprise so that no additional burdens for the taxpayers would be involved.

FUNDAMENTAL FEATURES OF THE BORROWING POLICY

Consistent with this theory, a policy of borrowing was developed along the following lines: borrowing was resorted to for all expenditures for permanent improvements; each project was considered separately and a separate loan was incurred for it; the bonds were earmarked so that the proceeds secured from them could be used only for the project for which they were authorized; the terms for which bonds

were issued and the rate of interest which they were to pay widely differed in the case of different loans; at first the loans were for short terms, ten, fifteen or at the utmost twenty years; when borrowing got into full swing, loans for longer terms were incurred, and then in time became the rule; at first, no sinking fund provisions were made for the repayment of the loans; when made, sinking funds usually took the form of a pledge of certain revenues to such funds; later, scientific sinking funds were provided from definite annual instalments computed actuarially; finally, the method of direct redemption of bonds by means of serial issues was devised.

THE POLICY BECOMES TRADITIONAL

This policy, once adopted, was adhered to under most circumstances. Borrowing for each improvement became a common practice. Extraordinary and sporadic borrowing became ordinary and regular. The separate bond issues grew in number and in amount. Yet the government authorities continued to assume that they were dealing with extraordinary expenditures and were using an extraordinary method of financing.

The accumulation of debt charges compelled the authorities to continue borrowing for each improvement. The debt charges on past borrowings sometimes exceeded in amount the present expenditures for permanent improvements. The authorities could not very readily stop borrowing and begin to finance the improvements from current taxation, for in such a case they would be imposing upon the people a double burden—that of the debt charges for past improvements, and that of the expenditures for new ones. Willy-nilly, they had to continue the old practice and justify it by the traditional arguments.

THE POLICY OF THE NATIONAL GOVERNMENT

The national government handles expenditures of this nature in a very different manner. Its practice has been

to lump permanent improvements with other expenditures and to finance them all from current funds and, whenever these funds proved insufficient, from current deficit loans. It has deviated from this policy on relatively few occasions. Nearly all the loans incurred by the federal government have been for financing deficits in the current expenditures rather than for any specific improvement project. Whenever its aggregate annual expenditures of every kind exceeded or were likely to exceed its annual revenues, loans were contracted to meet the deficits. These deficits have been occasioned as much by decline in revenues as by a large increase in expenditures. Special loans for special projects have been incurred by the government in scarcely more than a half dozen instances during the last century and a half. War expenditures alone have been consistently financed by means of loans; but even in these cases the loans were usually general in nature and were not earmarked to specific objects of expenditure.¹

THE CONTROVERSY OVER PUBLIC BORROWING

The resort to borrowing has generally met with some opposition in every state or community when first proposed. Though seemingly vanquished, the opposition revives periodically at a time when much borrowing is going on, and when the debt charges become a burden. A demand is then made upon the government to put an end to the piling up

¹ The instances in which special loans have been incurred for special projects or enterprises have been as follows: \$2,000,000 in 1791-1801 for the First Bank of the United States; \$712,000 in 1798 for the first navy of the United States; \$11,000,000 in 1803 for the purchase of Louisiana; \$4,000,000 in 1814 for the purchase of Mississippi; \$7,000,000 in 1816 for the Second Bank of the United States; \$5,000,000 in 1824 for the payment of the balance due on the purchase of Louisiana and Florida; \$5,000,000 in 1850 in connection with the annexation of Texas; \$1,091,000 in 1861 in payment of the Oregon War debt; \$65,000,000 in 1862-80 in aid of the construction of the Pacific railways; and \$135,000,000 in 1907-12 for the construction of the Panama Canal. For a complete history of the national loans to 1900 see Rafael A. Bailey's *History of the National Loans in the United States*, Census of 1880, vol. VII; and Wm. F. DeKnight, *History of the Currency and Loans of the United States*, 1900.

of debts, and to use current resources instead of loans in the financing of permanent improvements. Borrowing is declared imprudent, unfair to future generations, and wasteful of public money. The slogan "pay-as-you-go" is advanced as expressive of an opposite and wiser policy.

Like any slogan or catchword, "pay-as-you-go" emphasizes only the attractive sides of the proposition to which it is applied, and attempts to prejudice the listener or reader against the opposite proposition. By whom this term was invented, and when it was first advanced in application to the policy of financing permanent improvements from current revenues, cannot be ascertained. It is found to have been used in this application already in the eighteen-forties as evidenced by the following expression by the state comptroller of New York in his annual report for 1843 (p. 27): "The State of New York should not be in debt. In all future operations, its agents should be required to pay as they go, and not spend the people's money until they have it in hand." Mayor Cobb of Boston said, in his inaugural address of 1876: "I am not without hope, which seems to me not altogether chimerical, that the policy of paying as we go may be so strictly adhered to that the entire debt may be eventually extinguished in a few years." Thus the term is probably not less than a century old and is just as meaningless today as ever.

CHAPTER II

THE TREND OF EXPENDITURES FOR PERMANENT IMPROVEMENTS

Permanent improvements in state and local governments have tended, during the past half century, to become more diversified and also more permanently established. Expenditures for public parks, street railways, subways, and electric light and power plants have made their appearance; and most of the original types of expenditures have been continued.

In the cities, streets and bridges still constitute the principal item of expenditures for permanent improvements; but they are followed very closely today by the expenditures for school construction, which during the first half of the past century were relatively insignificant.¹ Expenditures for municipal water supplies and sewers, which began in a few of the larger cities in the forties and fifties and assumed great importance from the very outset, are usually near the top of the list in total amount.² Public parks, which were unknown until the middle of the past century in most cities, are found in almost every large city today among the leading objects of expenditure. Docks and other port facilities were provided by private enterprise until the last quarter of the century and in most cases even until the beginning of the present century. Now they are provided quite extensively by municipalities. Street railways and rapid transit lines, which until the close of the past century were provided and managed by private enterprise, are now provided and directly or indirectly managed in a number of cities by the municipal authorities themselves. Capital out-

¹ See footnote, p. 7.

² When New York City built its first municipal water works in 1836-44, there was but one other municipal water supply in the country.

lays in the field of rapid transit consume—in at least one case, that of New York City—more city funds than any other class of permanent municipal improvements.

Highways, schools, water supply, sewers, parks, port facilities and rapid transit consume almost 90 per cent of the expenditures for permanent improvements in the cities of more than 30,000 population. The remaining 10 per cent of such expenditures are distributed among a great number of objects, such as hospitals and other charitable institutions, jails and reformatories, police and fire stations and equipment, general municipal buildings, incinerators and equipment for collection and disposal of refuse, public health stations and clinics, libraries, playgrounds, bath houses, markets, and miscellaneous unclassified objects.

In the states, expenditures for highways, which in most cases began in the second decade of the present century, now consume 80 per cent of the outlay for permanent improvements. The expenditures for educational institutions overshadow in many states even the outlays for charitable and correctional institutions. These three objects consume 94 per cent of the total capital expenditures of state governments.

The balance of the state outlay for permanent improvements is concerned with such objects as canals, docks and other port facilities, general state buildings, development and conservation of natural resources, parks, armories, and, in one or two states, sanitation.

An idea of the relative importance of these various objects of expenditure and also of their trend over a period of fourteen years can be obtained from Tables V and VI, below. Docks and other port facilities, street railways, subways, ferries, electric light, power and gas enterprises are all lumped together under the term "public service enterprises." It should be noted also that neither counties nor minor cities and subdivisions (townships, etc.) are included in this compilation. If their expenditures for permanent improvements were included, the summation would be some-

what different. It would show somewhat larger percentages for highways and educational, charitable, and correctional institutions, and somewhat smaller percentages for other objects.

TABLE V

TREND OF PER CAPITA EXPENDITURES FOR PERMANENT IMPROVEMENTS¹

	Cities of more than 30,000 population		The forty-eight states	
	1913	1926	1913	1926
Highways (including bridges).....	\$3.38	\$7.95	\$13 ²	\$3.40
Education	1.37	4.84	.06	.31
Water supply	2.21 ³	2.71	...	...
Sanitation (sewers, collection and dis- posal of refuse).....	1.13 ⁴	2.99 ⁴	.01	.02
Institutions (charitable, curative, and correctional) .....	.22	.46	.07	.26
Public service enterprises (docks, transit, waterways, etc.) .....	.53	1.62	.18 ⁵	.07
Parks and recreation.....	.87	1.04	.01	.03
Protection to life and property.....	.29	.63	.01	.02
General government .....	.21	.48	.03	.06
Libraries and miscellaneous.....	... ⁶	.26	...	...
Conservation of health.....	.06	.09	... ⁷	... ⁷
Development and conservation of na- tural resources .....	...	...	.01	.04
Totals	\$10.27	\$23.07	\$51	\$4.21

¹ Computed from the figures of the United States Census Bureau in the following reports: *Wealth, Debt and Taxation*, 1913, vol. II, p. 44; *Financial Statistics of States*, 1926, table 15; *Financial Statistics of Cities*, 1913, table 2 entitled "Payment for Outlays by Principal Divisions of Governmental Service"; *Financial Statistics of Cities*, 1926, table 17.

² Almost one-half of this amount (\$5,670,778 out of a total of \$12,470,264) was the highway expenditure of New York state.

³ About 40% of the expenditures for water supply that year were expenditures of New York City (the Catskill supply).

⁴ More than 90% of the amounts were expenditures for sewers and sewage disposal plants. The rest were expenditures for refuse collection and disposal (equipment, incinerators, etc.). The per capita outlays for health included in these figures were \$.06 in 1913 and \$.09 in 1926.

⁵ Almost all of this amount was New York state's outlay for its barge canal (\$15,917,485 out of a total for all states of \$17,366,100); the balance is made up of California's outlays for the port of San Francisco and Massachusetts' outlays for the Cape Cod Canal.

⁶ The amount for libraries was included that year under education.

⁷ Included under sanitation.

TABLE VI

PER CENT OF TOTAL EXPENDITURES FOR PERMANENT IMPROVEMENTS
CONSUMED BY THE PRINCIPAL ITEMS IN 1926¹

	Per cent of total		
	In the cities of more than 30,000 population	In the forty- eight states	In the states and cities combined
Highways	34.4	80.5	41.6
Education	20.9	7.3	18.9
Water supply	11.7	...	9.9
Sanitation (sewers, etc.).....	12.9	.5	11.0
Institutions (charitable, curative, correctional)	2.0	6.1	2.6
Public service enterprises (transit, waterways, docks, etc.).....	7.0	1.7	5.9
Parks	4.4	.7	4.0
Totals	93.3	96.8	93.9

CONTINUITY AND RECURRENCE OF CAPITAL EXPENDITURES

Every one of the major classes of expenditures for permanent improvements has tended to become continuous and annually recurrent.

The officials who first authorize a particular expenditure may believe that it is purely temporary; that, with the execution of the particular project, the obligation will be ended. But the actual developments invariably prove otherwise. Other projects of a similar kind are forced upon them and must be executed in due time, for the needs which brought the original project into being usually continue and increase. The old properties become insufficient and obsolete. New properties must be added to them and they must in time be completely rebuilt. As the community or state grows larger, develops larger needs for public works, and uses them more intensively, it is compelled to increase them or to replace the worn-out parts more frequently. A certain amount of this work must be done every year. Thus the expenditure eventually becomes an annual one.

¹ Having once entered a certain field of activity and having begun to construct or acquire certain properties, the govern-

¹ Computed from the same sources as the figures in Table V.

ment is usually forced deeper and deeper into that work and finds itself permanently engaged in that activity.

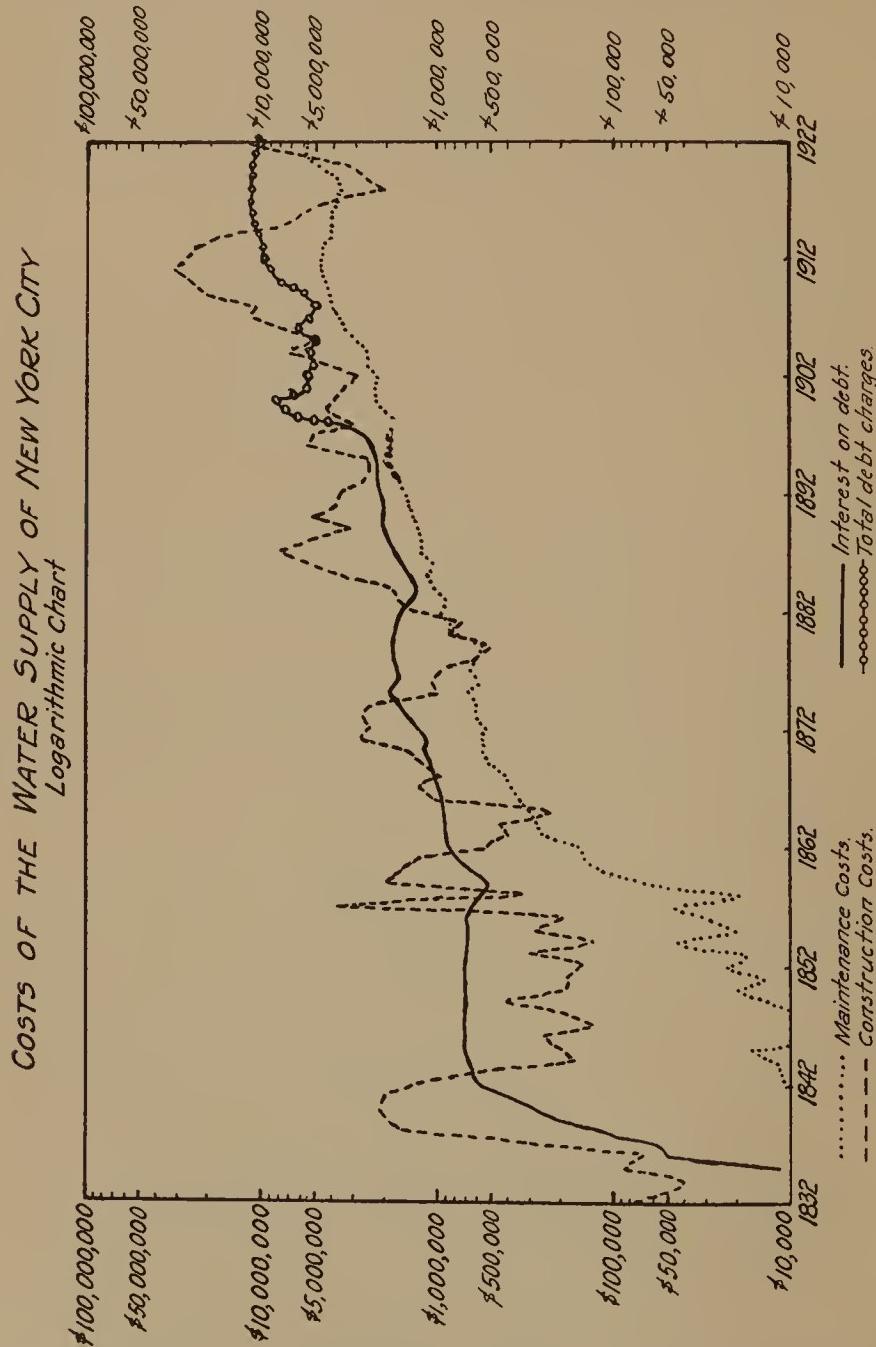


CHART I—COSTS OF THE WATER SUPPLY SYSTEM OF NEW YORK CITY

This tendency towards an annual recurrence of capital expenditures in cities is demonstrated by Charts I, II, III, and IV. It is seen from Chart I that New York City's ex-

penditures for water supply have been continuous and, in part at least, recurrent annually from the beginning. Annually during the past ninety or more years some expenditure for the purpose had to be made. Originally the recurrent expenditure was merely for the distributing system—extension and replacement of mains and the like; but in time, with the multiplication of storage reservoirs and various properties connected therewith, it extended to certain parts of the water supply system itself.

The undulations in the curve of construction costs reflect five periods of peak construction during the ninety years covered by Chart I, involving the construction, successively, of: (1) the original Croton Aqueduct; (2) the large reservoir in Central Park, in the late eighteen-fifties and early sixties; (3) the great storage reservoirs in the basin of the Croton River, in the seventies; (4) the new Croton Aqueduct, in the eighties and early nineties; and (5) the Catskill supply, in the first or second decade of the present century. The chart shows the debt charges only since 1898. For all the preceding years only interest payments are shown, because the figures of the amounts paid for amortization and redemption of the water debt prior to 1898 are not available. All the three classes of expenditures are shown to have been increasing. The interest payments or debt charges have been below the amounts spent for construction during the period of extensive construction, and above these amounts during the intervening periods.

Chart II shows that, during the period 1843 to 1880, the expenditures for school construction in Newark, N. J., were at first irregular. After the city built its first school, two or three years passed before the construction of another school was undertaken; and the construction of schools continued to be intermittent until 1880. During later years they have become more regular. The costs of operation and maintenance of the schools, denominated as current costs, have been increasing steadily. The construction costs have also been increasing, but they have done so through

a series of fluctuations. They have been recurring annually since 1880. Until the close of the past century, school con-

SCHOOL COSTS IN NEWARK, N.J.
Logarithmic Chart

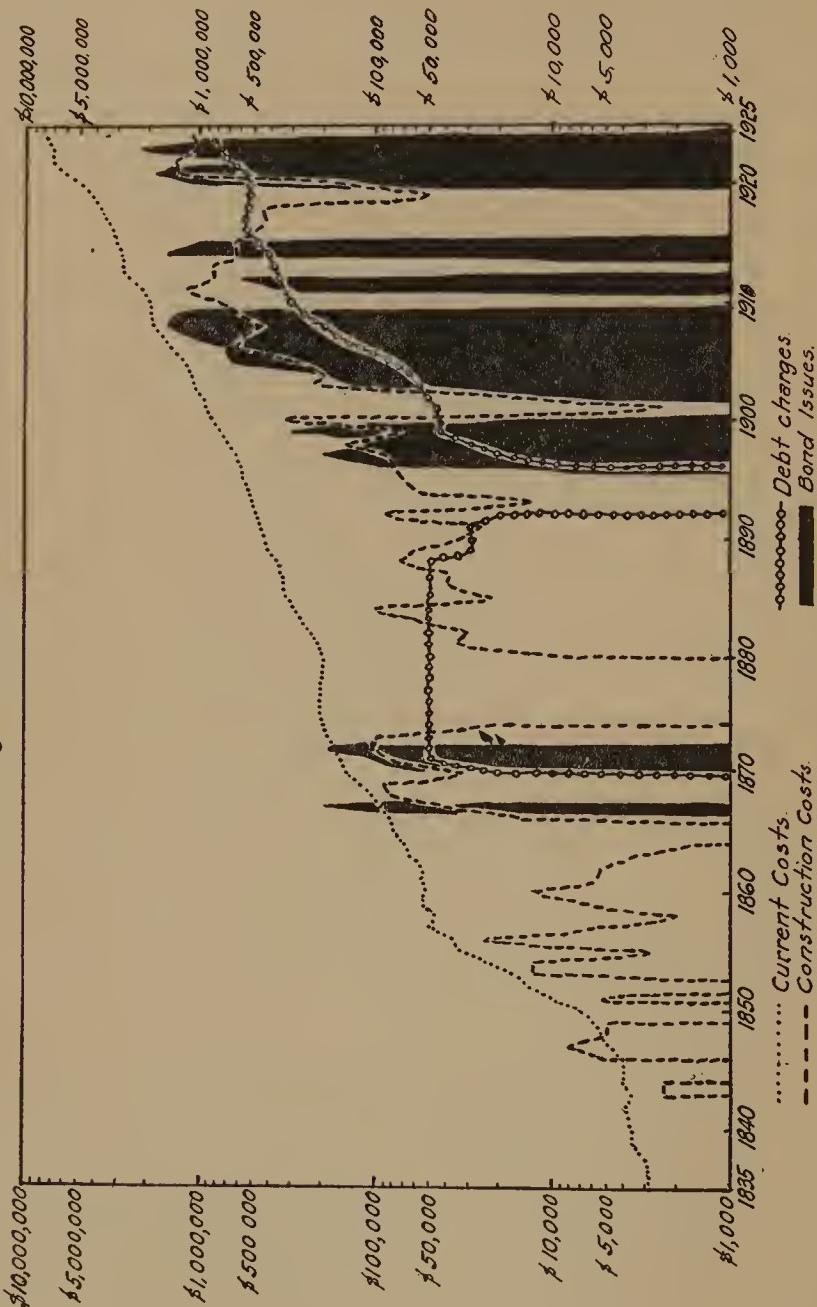


CHART II—SCHOOL Costs IN NEWARK, NEW JERSEY

struction had been financed preëminently from taxation. Since then it has been financed almost exclusively from loans. Except during two brief periods, the annual debt

charges under the loan policy have been below the amounts spent annually for construction.

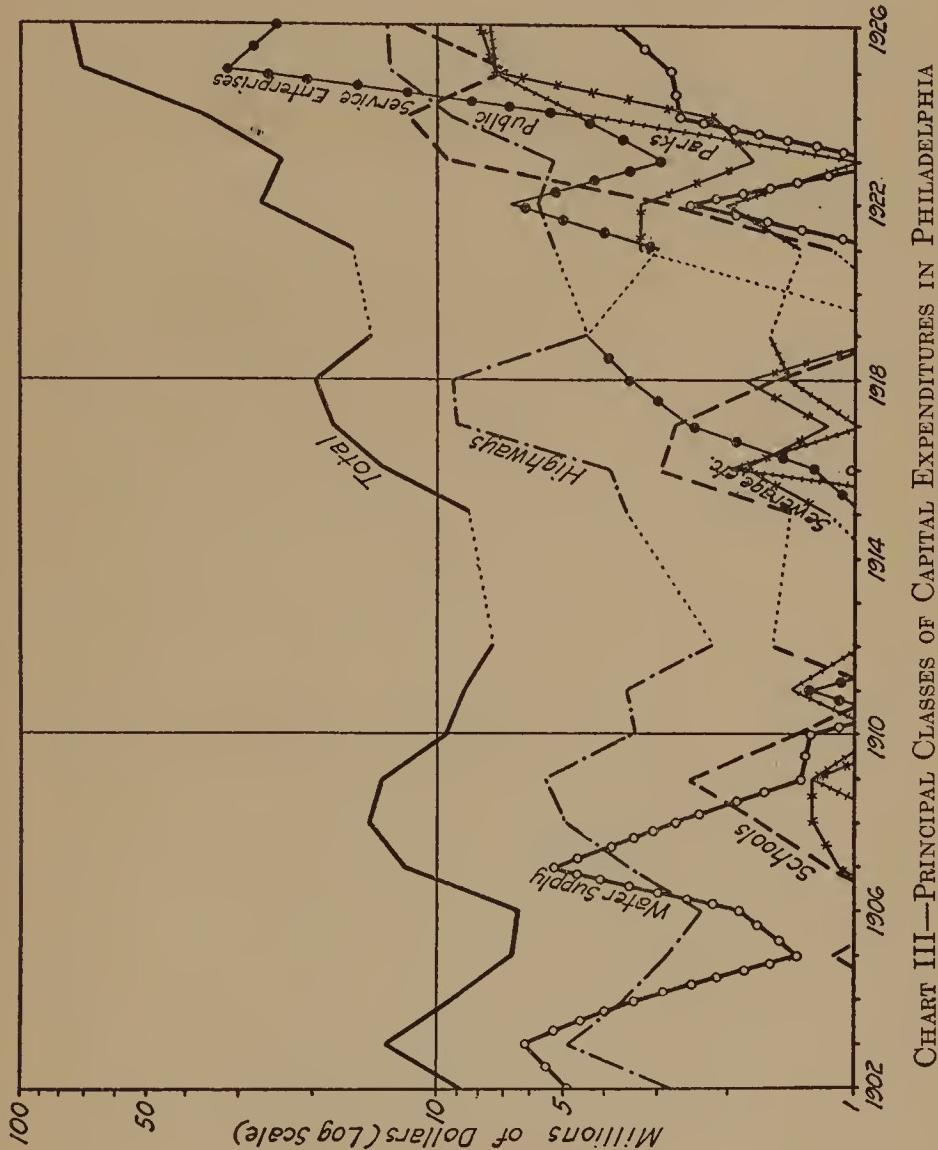


Chart III, which deals with the expenditures for permanent improvements of Philadelphia, shows that every one has recurred to some extent annually. It covers a shorter period and emphasizes annual variations to a larger extent than do the other charts.

PERIODIC FLUCTUATIONS IN CAPITAL EXPENDITURES

Some fluctuations in capital expenditures are of a minor nature and occur from year to year, being more or less accidental in character. Others are of major importance, each embracing a whole period of years, reflecting certain major tendencies during the period, and occurring sometimes with a certain degree of regularity.

Some of these periodic or cyclical variations are caused by certain conditions inherent in the particular class of expenditures for permanent improvements—conditions which determine the way in which these improvements may be executed. A fair illustration of such variations is found in the expenditures for the enlargement of water supply. Such property does not consist, as other property does, of a great number of units or parts built at different times, to which new units or parts may be added every year. It is composed frequently of one single unit or system of works such as a great reservoir (or system of reservoirs) and a great aqueduct many miles long. It can be enlarged only by the construction at some time of another such great unit or system. The aqueduct, reservoir, or the source of supply itself have a maximum capacity and, when this has been reached by the consumption, must be supplemented by the construction of another great reservoir or aqueduct or the development of another source of supply.

Years must often pass before the execution of such new projects is finally approved; for the public must be thoroughly aroused to the need of these projects and the authorities must settle the various political controversies which inevitably arise in connection with them. When the work is finally begun, it must usually be prosecuted with great speed, for by this time the consumption may have reached the maximum capacity of the available supply and there may be danger of a water famine in time of drought. Thus it becomes necessary to execute the works, and to spend large sums of money for the purpose, in the course of a few years. After the work is thus completed, no other work of

the same kind and no other expenditure of the same magnitude need be undertaken for another ten or fifteen years, as the capacity of the supply has usually been increased sufficiently to take care of the growing consumption for some time. At the expiration of that period, the work of enlarging the supply must again be undertaken. Thus expenditures fluctuate in a regular way, each cycle consisting of a rise and fall of expenditures, and embracing twenty or more years.

Five such cycles in the construction of the New York City water supply have occurred during the past hundred years, each embracing about twenty years, as can be seen from Chart I.

Some of the periodic fluctuations in expenditures for permanent improvements are caused by the pressure brought to bear by different groups of the community in favor of different classes of expenditures. Obviously, those objects of expenditure which approach nearest an emergency or lend themselves best to presentation as such, or which simply happen to be supported by the most able advocates and by those groups of society that happen to be in the ascendancy at the moment, secure the most liberal attention of the public authorities in the allocation of funds. While these objects are being attended to, other objects not possessed of the same emergency feature or supported less well, are often being neglected. Their neglect becomes in time very serious and the need for immediate attention to them becomes imperative. More able advocates take up the cudgel in their behalf and persuade the public authorities to turn their attention to them. Liberal authorizations of bonds or tax funds are secured and these authorizations continue, for a while; but this is often accomplished only at the expense of the other objects, the authorizations for which are reduced. In time, the neglect of the latter becomes serious; then agitation on their behalf is renewed. Liberal authorizations are again secured for them, while the others are once more neglected. Thus the scene is constantly shifting; now bringing one class of expenditure forward, now another.

These rises and falls in the various classes of expenditure, whether occurring independently of each other, or alternately, are well shown in Chart III, on page 27.

Fluctuations Caused by the Business Cycle. Still other fluctuations in capital expenditures are caused by the business cycle. In times of prosperity most, if not all, of the expenditures for permanent improvements shoot upward, for industry and commerce which are expanding rapidly demand a great many new governmental services and improvements, and the inhabitants of the cities require them likewise on a larger scale. Money being plentiful, large revenues can be raised without difficulty either by taxation or by borrowing. State and municipal bonds sell at low rates of interest and at a premium. In times of depression, on the other hand, most if not all public expenditures suffer a setback. The need for many new services abates temporarily, due to contraction of industry and business and the slump in building activity. The people become unable to bear high taxes and demand reduction in taxation and retrenchment in expenditures. The money market becomes tight and government bonds cannot be sold to advantage.

Of all public expenditures, those for permanent improvements naturally respond the quickest to these successive changes in business conditions, for they are the most elastic. It is possible to expand or contract them quickly because the work they call for is done largely under the contract system and not by a permanent force of public employees. It was generally believed, at least until very recently, that the best time for the execution of expensive public projects is in periods of affluence; the worst time—in periods of depression.¹ Consequently, as soon as business depression arrived, pressure was usually brought to bear upon the government to postpone all new projects. As soon as the depression was over, a demand was made to proceed with the projects at full speed.

The connection between the business cycle and the fluctuation in permanent improvements can be easily traced. The

¹ For a contrary opinion, advanced in recent years, see p. 82.

period following the Civil War was marked by a great expansion in expenditures for permanent improvements in all large cities and in states to a lesser degree. During that period the Tweed ring in New York City found its opportunity for plunder and increased the debt of the city from thirty-four to one hundred and seven million dollars. The depression which followed the panic of 1873 caused everywhere a contraction of expenditures for permanent improvements and a great wave of economy which lasted in most places until the recovery of business in 1878. Then followed a series of alternating expansions and contractions of expenditures, associated in each case with the alternating periods of prosperity and depression, and terminating in a great increase of expenditures towards the close of the past century and the beginning of the present century in connection with the great expansion of business during that period. The years immediately preceding the World War were years of uncertainty and even depression, and were in many states and cities marked by a slow-down in the expenditures for permanent improvements. The War itself required a retrenchment in these expenditures. The period of after-war prosperity has seen a great increase in the expenditures of this nature.¹

Fluctuations Caused by Political Factors. Factors of a distinctly political nature, which have little if anything to do with economic conditions, also influence capital expenditures. For example, the authorization for the issue of bonds for a given expenditure causes that expenditure, once begun, to continue until the work is completed, even though in the meanwhile prosperity may have been succeeded by economic depression.

¹ A number of financial histories of cities and states support these statements. See, for example, E. L. Bogart, *Financial History of Ohio*, University of Illinois Studies in Social Science, vol. 1, 1912, pp. 97, 99, 104, 106, 108 and 112; W. C. Frankenhauser, *Financial History of California*, University of California Publications in Economics, vol. 3, 1913, pp. 248, 321 and 364; E. T. Miller, *Financial History of Texas*, University of Texas Bulletins, new series, 1916, no. 37, pp. 195, 199, 240 and 244; and Huse's *Financial History of Boston*, Harvard Economic Studies, vol. XV, 1916, p. 343.

An administration elected during a period of depression on a platform of economy sometimes continues the policy of retrenchment into the period of prosperity. On the other hand, an administration elected during a period of prosperity on a platform of liberal expenditure for the good of the people sometimes continues the policy of liberal expenditure into the period of depression. An excessive increase in expenditures for permanent improvements in a period of prosperity, accompanied perhaps by actual corruption, results sometimes in such a strong popular reaction against further liberal expenditures and such exhaustion of the public treasury that a brake is applied at once, and the expenditures are kept low for the succeeding period even though the economic conditions might once more have become favorable; or vice versa.

The state or city government, which is limited in its borrowing powers by constitutional and statutory restrictions, and which proceeds with a large program of expenditures for permanent improvements, soon reaches the borrowing limit and is unable to proceed. Only when, as a result of agitation, the limit is finally extended, can it proceed with these expenditures on a large scale. Thus a certain amount of fluctuation is caused by this alternating exhaustion and enlargement of the borrowing margin.

Consolidation and annexation of territory also often necessitate large increases in the expenditures for permanent improvements.

The exemption of state and municipal bonds from federal and state income taxes, a factor of recent origin and of a distinctly political nature, has been responsible, in part, for the recent large increases in state and municipal expenditures for permanent improvements. State and municipal bonds are in great demand as tax-exempt investments. The withdrawal or curtailment of these exemptions would be very likely to restrict the sale of state and municipal bonds.

Fluctuations Caused by Other Factors. Revolutionary changes in industry and commerce may necessitate the

execution of new types of public works. Thus the invention of the steam engine and the construction of steam railways a century ago, which brought about the rapid increase of city population, made necessary the execution, on short notice and at great expense, of the first modern municipal works. The invention of the motor vehicle more recently, and the general and rapid adoption of this mode of locomotion, brought with it everywhere an avalanche of public expenditures for the reconstruction of roads.

The discovery of natural resources, the location of some great industry or industries, or the construction of new lines of transportation make necessary many new public works.

Catastrophes may be responsible for large immediate increases in the expenditures for permanent improvements, which may last for several years before the work of reconstruction of destroyed public properties has been finally accomplished and new works destined to prevent the recurrence of the same catastrophies have been built.

THE GROWTH OF CAPITAL EXPENDITURES AND THEIR RELATION TO CURRENT NEEDS

Throughout all these cyclical fluctuations one basic tendency may be observed: the expenditures for permanent improvements tend in the long run to increase, as shown in Charts I and II. This increase is due either to the increase in the magnitude of the works executed or to the increase in the levels of wages and prices of commodities which enter into their construction.

Charts IV and V show the aggregate capital expenditures of all classes in five representative cities and five representative states, during the periods 1902 to 1926, and 1913 to 1926, respectively. In every year during the period some capital expenditures were made. The expenditures have in every instance been continuous in that sense and, in part at least, annually recurrent. They have fluctuated periodically, rising to high levels at some times and dropping

to low levels at others. Taking the period as a whole, they have shown in every instance a definite tendency towards increase.

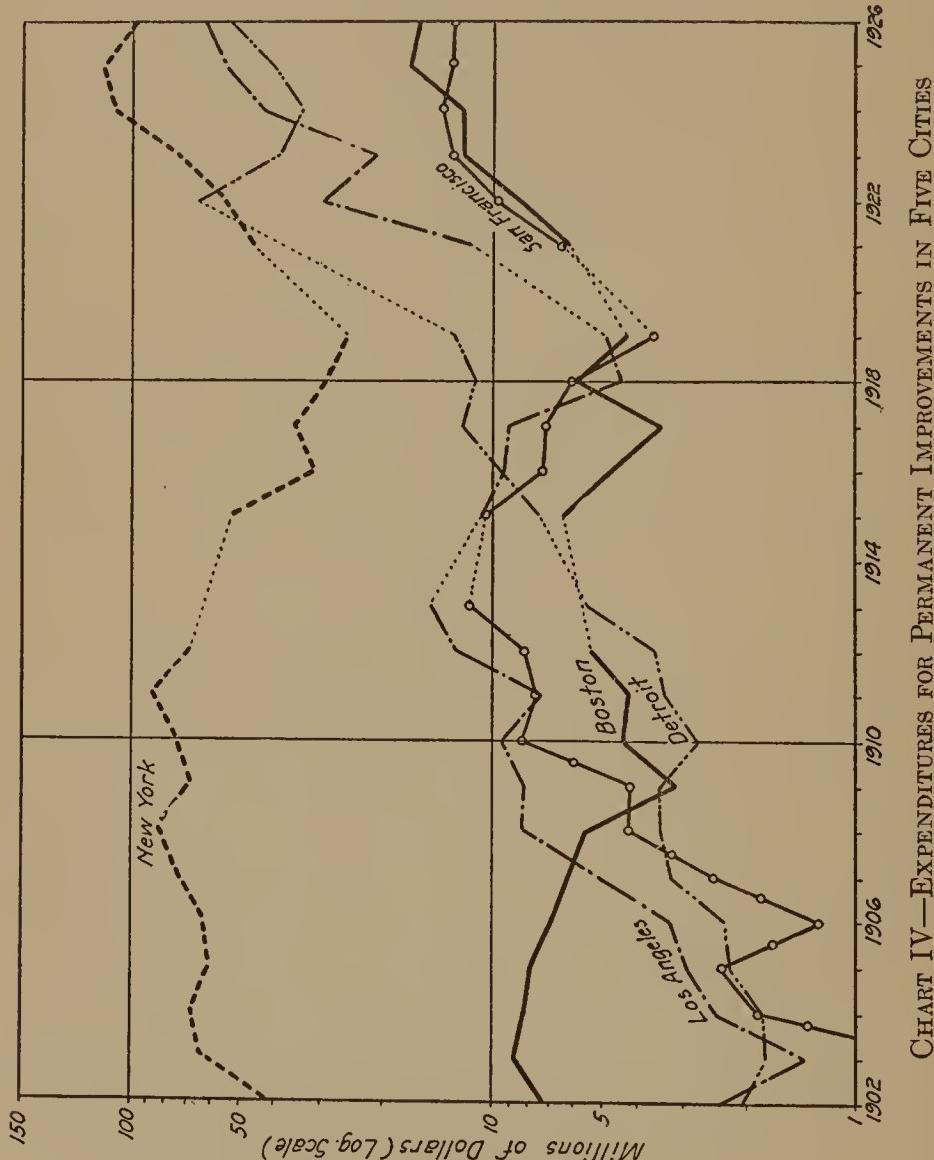


CHART IV—EXPENDITURES FOR PERMANENT IMPROVEMENTS IN FIVE CITIES

The total capital expenditures of all classes show less pronounced fluctuations and greater regularity over a pe-

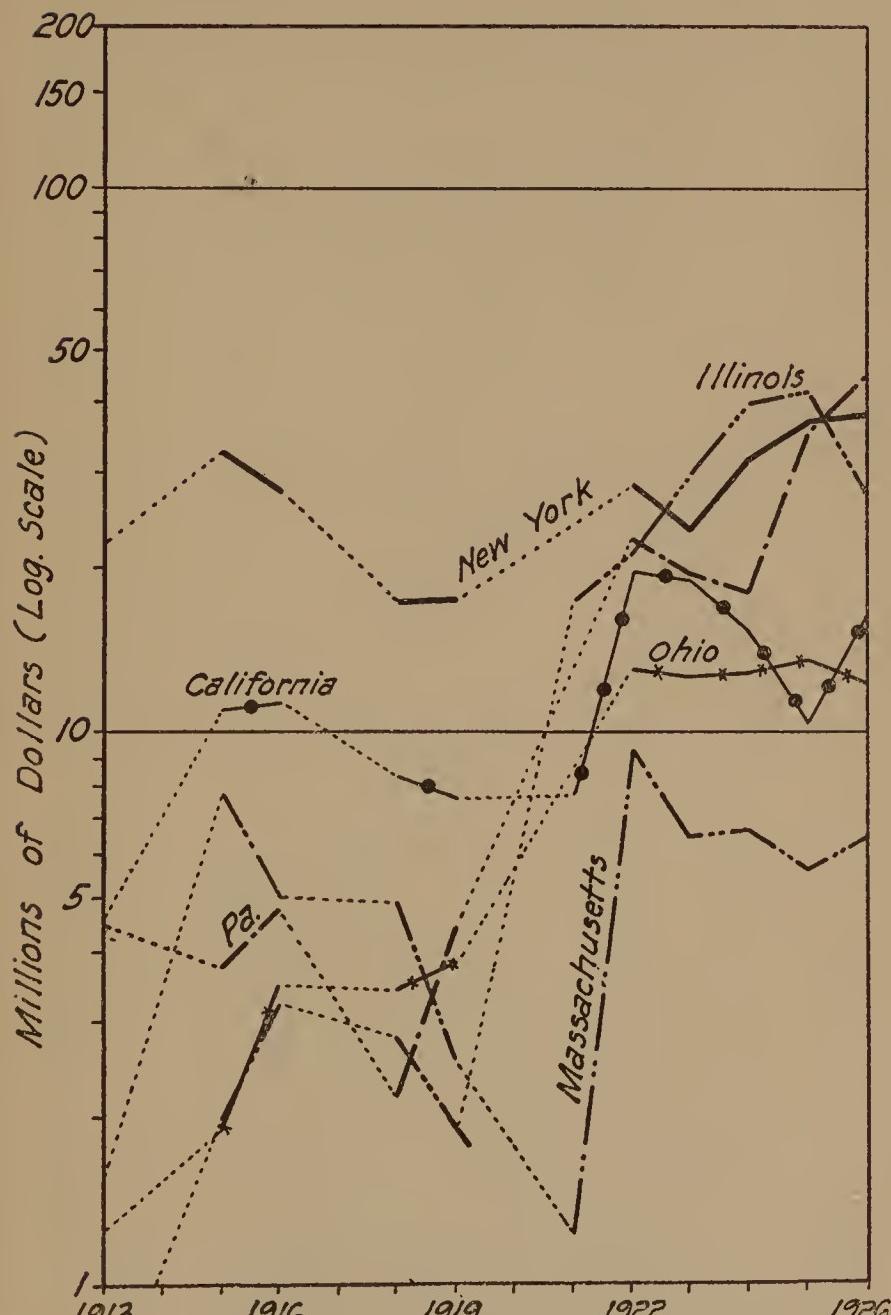
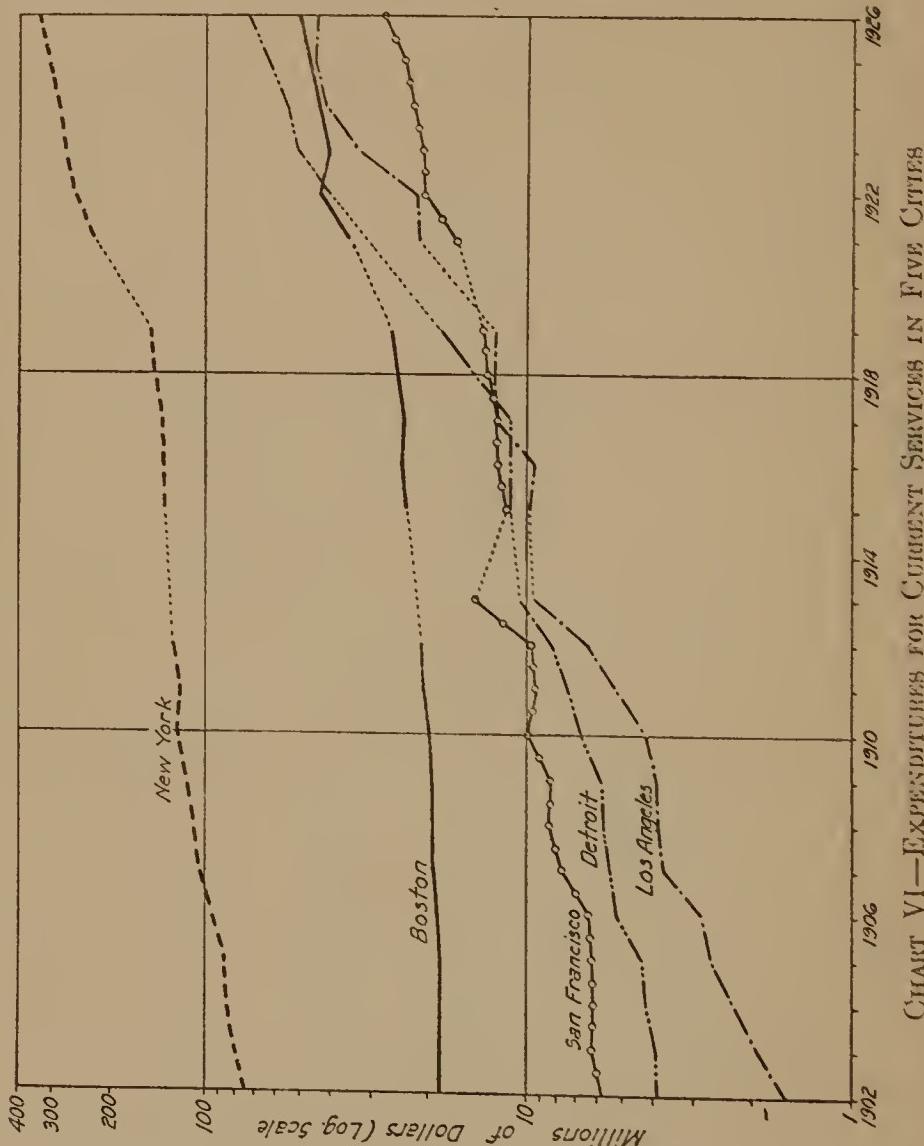


CHART V—EXPENDITURES FOR PERMANENT IMPROVEMENTS
IN SIX STATES

riod of years than do expenditures for any individual class of permanent improvements. This fact can be observed, in the experience of Philadelphia, Chart III, in which are



plotted the expenditures for individual classes as well as the total expenditures of all classes of permanent improvements (the top curve). The peculiar fluctuations which occur in individual classes of expenditures offset each other to a large extent in the total, and an increase in the expen-

diture for one class is often counterbalanced by a decrease occurring at the same time in another; and vice versa.

Charts VI and VII show the expenditures for current services in the same cities and states. These expenditures, it will be observed, are much more regular than the expenditures for permanent improvements. Some fluctuations occur here also, but they are much less pronounced. Thus it is seen that in the case of New York City (Chart VI)

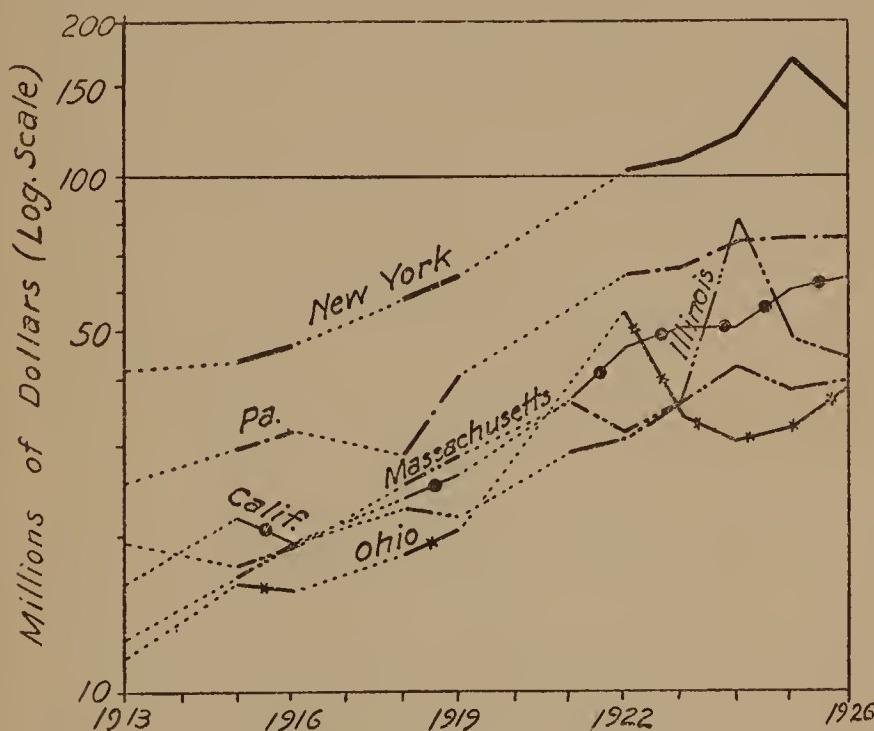


CHART VII—EXPENDITURES FOR CURRENT SERVICES IN SIX STATES

the expenditures for current services increased quite rapidly and steadily during the first decade of this century, and continued rather slowly but just as steadily during the second decade; whereas the expenditures for permanent improvements increased more rapidly and also more irregularly during the first decade and decreased rapidly during the second decade; and have been increasing in a spectacular way in the third decade. Similarly in Boston the expenditures for current services have fluctuated,

but to a lesser degree than expenditures for permanent improvements.

All expenditures for permanent improvements of a state or local government are interrelated. Each improvement constitutes a part of the permanent plant which enables the government to render the various services demanded by the people.

Each year the community produces a certain amount of permanent improvements and, on the other hand, consumes a certain part of these new improvements as well as the earlier improvements. If the year's production exceeds the estimated year's consumption, there is an annual saving which is transmitted to the future as a net addition to the plant. If the year's production falls below the year's consumption, a loss results, which is likewise transmitted to the future. In a progressive state or city, both the production and the consumption of permanent improvements increase over a period of years. The production, however, generally exceeds the consumption, and leaves a margin which alone represents a permanent addition to the plant.

An entirely different conception of permanent improvements and the benefits secured from them is obtained when they are considered in the aggregate rather than singly. It is evidently incorrect to compare the production of the improvements in the present with their consumption in the future, and to conclude that practically the entire production is for future use and has no relation to the past and present consumption. Comparison should be made between the year's production of these improvements and the year's consumption—not of these improvements, but of all improvements ever executed and still in existence. Permanent improvements should be conceived as parts of a continuous and normal process of meeting the needs of the community, repairing the damage done to the government plant by its past and present use, and expanding and improving the plant by producing each year more than is consumed in order to meet expanding future needs.

Permanent improvements and the expenditures for them are continuous, because they are founded upon certain continuous, permanent needs of the community. These needs must be satisfied. They cannot be denied or postponed for any length of time without causing discomfort to the people and stifling the development of the community. There seems to be just as much compulsion about the execution of permanent improvements as there is about the performance of the so-called current services. But such compulsion is of a long-range kind and is fully apparent only when the improvements are viewed in the aggregate over a period of years. Without the permanent improvements, the current services cannot go on.

CHAPTER III

DEFUALTS AND BANKRUPTCIES

Unplanned and uncoördinated borrowing for all permanent improvements may eventually lead to serious financial embarrassment, if not actual bankruptcy of a government. The day may come when the government finds itself unable to pay the heavy debt charges resulting from constant borrowing; it may default in the payment of interest, and may even repudiate part or all of the principal of its debt. This has happened in a number of our states and municipalities.

DEFUALTS ON STATE LOANS

The first period of default on state bonds occurred in the early forties. It constituted the closing chapter of that great era of internal improvements when the states ventured on a large-scale program of construction of roads, canals and railroads and the promotion of banks, most of which were financed by bonds. New York, Pennsylvania, Maryland, Indiana, Illinois, Michigan, Florida, Mississippi and Arkansas defaulted on the payment of interest on their bonds and did not resume payment, in some cases, for several years. Mississippi even repudiated a large portion of its debt.¹

In New York the confidence of money lenders in the credit of the state was so shaken, after the default, that "the 6% stock which in 1833 bore a 20% premium was not saleable in 1842 at 22% discount and large lots were sold at a depreciation of 22 cents on every dollar."² In the words

¹ For a description of these defaults and repudiations see W. A. Scott, *Repudiation of State Debts*; and Wm. L. Raymond, *State and Municipal Bonds*.

² Report of the comptroller of the state of New York for the year 1842, p. 21.

of the comptroller, New York state was faced by insolvency and was "on the very brink of dishonor and bankruptcy."¹ Only by the enactment of a special tax, and discontinuance for the time being of all further improvements, did the state manage to wriggle out of the difficulty. As a result of this experience, a clause was inserted in the New York constitution in 1846, permitting the state government to borrow in excess of \$1,000,000 per year only upon consent of the voters in a referendum in each case. This clause is still a part of the constitution, although it is at present considered by many people as entirely too rigid and inappropriate to present-day conditions.²

The state of Pennsylvania reached an even worse plight. It was caught in the midst of its construction work, and was unable either to stop the work or to pay the contractors. It kept on borrowing until finally its bonds were unsaleable. The crash came in 1842; the state defaulted on its interest payments, and did not resume payment until 1845. The various public works were abandoned, and the canals and railroads were either given away, or were sold for small sums, to private companies.³ For years thereafter the state of Pennsylvania had to pay interest and redemption charges on its debt which had reached the sum, enormous for those days, of \$42,000,000. Quite naturally, there developed in the state an aversion to any further borrowing. By a constitutional amendment adopted in 1857, the state was prohibited from incurring a debt in excess of \$750,000, except for military purposes in time of rebellion or war. No new debts were incurred by Pennsylvania until the year 1918.⁴

¹ *Ibid.*, p. 13.

² See the numerous pronouncements to that effect by Governor Smith in 1925-27.

³ For a fuller account of this incident, see *Pennsylvania, Colonial and Federal*, edited by Howard M. Jenkins, vol. II, pp. 306-322, 350-358, and vol. III, pp. 268-295. The passage of the state canals and railroads into private hands began in 1845 and was completed by 1859. See also United States Census, 1880, vol. VII, pp. 541-43.

⁴ By 1902, the state of Pennsylvania was practically free from debt, the sinking fund almost equaling its remaining gross debt of \$4,806,649. By the end of 1912 its gross debt had been reduced to \$659,160 and its sinking fund was in excess of that amount (United States Census Bureau, *Wealth*,

The second period of default by states came during the reconstruction following the Civil War. A number of Southern states, which had borrowed extensively because of their impoverished condition, defaulted on the payment of interest as well as the principal of their debts. Some states, for example Tennessee and Virginia, eventually settled with bond holders by the payment of a certain percentage of the debt.¹ Other states have refused to the present date to honor their obligations. The Council of the Corporation of Foreign Bondholders, which holds the bonds of these states, claims that the amount of the bonds in default, as of 1926, is in excess of seventy-five million dollars.² This list, shown in Table VII, includes only bonds issued for public improvements. It does not include "Confederate Bonds" or war debts. Nor does it include interest, in most cases of 6 per cent, which has not been paid for a period ranging between fifty-five and eighty-five years.

TABLE VII
DEFAULTED STATE BONDS

State and purpose	Approximate principal outstanding (in millions of dollars)
Alabama (guarantees to railways, etc.)	\$13.0
Arkansas (principally railway guarantees)	8.7
Florida (banks and railways)	8.0
Georgia (principally railway guarantees)	13.5
Louisiana (railway guarantees and other purposes)	6.0
Mississippi (banks)	7.0
North Carolina (railways)	13.0
South Carolina (various)	6.0
Total	\$75.2

The Council of the Corporation of Foreign Bondholders has taken various steps to collect these debts; but so far

Debt and Taxation, 1913, vol. 1, p. 187, and *Public Debt*, 1922, p. 15). Two successive constitutional amendments affecting state indebtedness were approved by the people; one in 1918 permitted the state to incur indebtedness for highway construction up to a total of \$50,000,000, and one in 1922 increased this amount to \$100,000,000.

¹ William L. Raymond, *op. cit.*, pp. 56 ff.

² *Annual Report of the Council for 1926*, p. 417.

its efforts have been fruitless. The states find shelter in the eleventh amendment to the United States constitution, which permits an individual to sue a state only with the latter's consent. The constitution of the state of New York is the only one which permits bondholders to sue the state in case of a default.¹

DEFUALTS ON MUNICIPAL LOANS

Several municipalities defaulted on their bonds during the period of rapid municipal development between 1840 and 1850. Among these were Detroit and Philadelphia, which defaulted on their bonds in 1843 and 1857, respectively, and Chicago, which defaulted on its bonds in 1857.

Detroit, in its effort to extricate itself, adopted heroic measures. It rented the city hall for theatrical performances; converted a market house into a school house to avoid building a new school; increased the water rates; established a sewer tax; and sold some of its most valuable real estate and some of its fire equipment.²

Several cities defaulted on their bonds during the period of rapid municipal development following the Civil War. Among these were Elizabeth and Rahway, New Jersey. Though these defaults occurred fifty years ago, the cities did not fully recover from them until recently. Elizabeth's heavy debt was incurred in the early seventies for paving streets in uninhabited wooded sections which were owned by politically influential real estate promoters.³ For about

¹ Article 7, section 11. This clause provides that the amounts necessary to pay interest and the redemption charges shall be appropriated and set aside each year and that "the comptroller may be required to set aside and apply such revenues as aforesaid, at the suit of any holder of such bonds."

² For a history of this defalcation and the interesting correspondence with the outraged bondholders, among whom were John Jacob Astor, Cornelius Roosevelt, the grandfather of the late President Roosevelt, and others, see Burton, *History of Detroit*, pp. 154 and 155. Some of the parcels of real estate sold by the city then at \$100 or less, in order to raise revenue for the payment of the debt, would have been worth to the city today millions of dollars had they been kept in public hands, as shown by the figures of assessments of these parcels, quoted by Burton.

³ See William E. Sackett, *Modern Battles of Trenton*, vol. 1, pp. 159 ff.

forty years the city of Elizabeth had to use every available penny for interest and redemption of the debt; the citizens had to go without needed improvements and services, and to put up with the decline in property values. The last instalment of the old debt was paid in 1922, furnishing an occasion for a happy celebration. Having restored its credit, the city again began to borrow substantially, though with caution.

The city of Rahway contracted a heavy debt at about the same time as Elizabeth, for new water works and other improvements. It expected to become a great industrial center and was looking forward to a great rise in property values. But these expectations did not materialize, and the city became unable to meet its obligations. The subsequent developments were similar to those in Elizabeth. They involved the payment to bondholders of a certain percentage of the obligation; severe retrenchment in expenditures through curtailment of improvements for the next forty or more years, during which the bonds were amortized; and continued decline in property values. The results of this situation are plainly visible in the city today.

A number of cities have recently defaulted on their bonds. Among these are two municipalities in Texas;¹ fifty-six in the state of Washington;² several in Florida; and more than twenty in the Canadian provinces of Manitoba, Saskatchewan, and Alberta.

The municipalities in the state of Washington defaulted during the years 1921-26 on bonds aggregating \$4,000,000.³

¹ See *Bond Buyer*, October 18, 1924.

² See *New York Times*, December 9, 1925, p. 4.

³ H. B. Bickner, of the Washington Defaulted Bondholders' Association in an article entitled "Washington's Defaulted Bonds Not to Be Redeemed," states: "With seventy-four towns having local improvement district bonds actually or potentially in default, the situation in the state of Washington is said to be the worst in the history of the United States in the past twenty-five years. The Investment Bankers' Association of America has recently compiled a list showing fifty-six towns in this northwest state with bonds already in default, and eighteen which are behind or slow and which are considered potentially in default. The amount totals approximately \$4,000,000." (*National Municipal Review*, August, 1927, p. 493.)

"The securities were special assessment bonds, the cities acting as agents of the property owners and assuming no financial obligation for them. They were issued during the boom period in the Pacific Northwest in the years 1900 to 1921, many of the towns and cities doubling in population during that period. The conditions then resulted in over-development in the way of new additions, real estate expansion, and the kindred things that surround such a period."¹

The bondholders appealed to the legislature for a remedy. A lively controversy developed. Numerous bills have been introduced in the legislature, at every session since 1922, providing various proposed correctives, including the imposition of a special general property tax on all defaulting municipalities. Some of these measures, which would have enabled the municipalities to redeem the defaulted bonds, were passed in the session of 1927, but were vetoed by the governor. However, "other bills, which were aimed to strengthen the bonds to be issued in the future, were passed and subsequently signed by the governor, and many city officials seem to be of the opinion that this will strengthen the market for improvement district bonds."² In the meanwhile, the interest rate on the new improvement bonds in the state of Washington has gone up to 7%, and the contractors who take these bonds have to allow large discounts, ranging between 15 and 40 per cent, in order to find a market for them. To recoup themselves for these discounts, the contractors charge a higher price for their work. Thus in the end "it is the property owners—the taxpayers themselves—who are paying the penalty (for these defaults) . . . and those who have given the matter study contend that this condition will prevail in Washington as long as the defaulted bonds are outstanding and no effort is made to redeem them."³

¹ Report of Joel S. Ferris at the Spokane convention of the Investment Bankers' Association, 1925.

² H. B. Bickner, *op. cit.*, p. 493.

³ *Ibid.*, p. 495.

The net debt of seven municipalities in the Winnipeg district, Canada, which defaulted on their bonds, amounted, on December 31, 1923, to \$17,626,411, or 34 per cent of their assessed valuation.¹

The legislative committee which investigated the situation recommended the establishment of a "Winnipeg Municipal Board"—a body corporate and politic which would take over the administration of such of these municipalities as the provincial authority might find necessary.² The act as recommended was passed,³ and a board, composed of one representative elected from each "administered municipality" and of a chairman appointed by the provincial authority, was established.

The board was given, under the act, all the powers of the city councils and of all other municipal officers who immediately were to "cease to function and to have or possess any authority in or for that municipality" and were to deliver forthwith to the board all moneys, books, records, supplies and "all other property relative or belonging to the municipality, all of which shall thereupon and thereafter be vested in the board." The board, in addition, was given power to consolidate the services or departments of any administered municipality with the corresponding services or departments of any other administered municipality or municipalities, and to allocate the cost of these services between them in due proportion; to arrange with bondholders for the extension of the time of payment of the principal of the debt or reduction of the rate of interest payable on the bonds, of any administered municipality; to issue its own bonds to refund or redeem the bonds of any administered municipality; and to receive advances or loans from the provincial government for the payment of any such obligations.

¹ See *Bond Paper*, April 11 and May 2, 1925.

² Legislative Assembly of Manitoba, interim report of the select committee of the legislature appointed to investigate suburban municipalities adjoining Winnipeg, February 10, 1925, 32 pp.

³ Chapter 99, laws of Manitoba, 1925.

Armed with these vast powers, the board proceeded with the reorganization of some of the services rendered by these municipalities, and effected reductions in their expenditures; reduced the assessments on unimproved land, the over-assessment of which had much to do with the plight in which the towns had found themselves; effected agreements with bondholders providing for the extension of the time of payment of the principal of the bonds; and secured loans from the provincial authority, with which it met the continuing annual municipal deficits. While reporting an improvement in the finances of the administered municipalities at the end of its first year of operation, the board nevertheless noted that "it is still an impossibility to establish and maintain financial equilibrium."¹ The law provides that "if at any time the Lieutenant-Governor-in-Council has reason to believe that the affairs of any municipality being administered by the board can be properly conducted by a council and that the municipality is and should be thereafter able to promptly meet its financial obligations as they arise," an election shall be ordered in the municipality at which the council and mayor shall be elected who shall then "assume and exercise full control and jurisdiction over the municipality." It is probable, however, that the receivership of the cities will not be terminated for several years.

In the province of Saskatchewan, eight towns found themselves in financial difficulties, and defaulted in the payment of interest during the period 1917-1925. "This unhappy condition," says Commissioner Baynes,² "resulted from what resembled a boom in the years 1910, 1911, and 1912." As is usual in such cases, improvements were executed and money was borrowed on a relatively large scale in the expectation of a rapid municipal growth. When the boom was over and the reaction set in, many taxpayers had properties

¹ Report of the Winnipeg Suburban Municipal Board to the Municipal Commissioner, for the year ending December 31, 1926.

² Letter of Commissioner J. R. Baynes, of the Local Government Board of the Province of Saskatchewan, to the writer, dated December 7, 1926.

which could not be sold on account of depreciation in value. The town governments were receiving less revenue than they had expected, as the assessed valuations either dropped or remained stationary. On the other hand, heavier debt charges piled up than they were able to meet.

There was consternation among the bondholders. The local government board took a hand in the situation. Various compromise agreements were made between the towns and the bondholders, and were confirmed by the legislature. Under one of these agreements, the old bonds were called in and new ones were substituted on which the payment of interest was to begin five years later, thus giving the municipalities time to recuperate. The interest rate was also reduced fifty per cent or more. Under another agreement, a sliding scale was adopted by which the rate of interest was fixed for the first five years at 1 per cent, gradually increasing every five or ten years by 1 per cent, until finally it would equal the full rate. In four municipalities, the bondholders consented to a partial repudiation of the debts.

In confirming the settlements in each case, the legislature made the local government board a trustee for the duration of the period of indebtedness.¹ According to the report of the board for the year 1925-1926, the financial condition of the towns improved rapidly following these adjustments.

Five municipalities in the Montreal district were recently saved from default by the surrender of some of their powers of local self-government. In Maisonneuve, default was averted by the annexation of the town to Montreal and the assumption by the latter of the town's debt. The boom in real estate values all over Canada, which commenced during the year 1910, followed by a slump in 1913, was responsible for the plight of these municipalities.²

The Montreal Metropolitan Commission was established by the legislature to take over the financial affairs of these

¹ Laws of 1925-1926, chapters 32, 33, 65 and 67.

² See article by E. T. Sampson, secretary of the Montreal Metropolitan Commission, in the *City Manager Magazine*, March, 1925, pp. 170 ff.

communities and to put them in order. The municipalities were allowed to make no expenditure and to issue no bonds without the authorization of the commission, which practically established a receivership.

It is seen from this review that defaults and repudiations by states and municipalities are not entirely ancient history. They occur even today, and are liable to occur in the future wherever caution in borrowing is not exercised. Wherever they do occur, the consequences for the defaulting governments are serious, and the readjustments to which they must submit are generally painful to the taxpayers.

CHAPTER IV

LEGAL RESTRICTIONS ON PUBLIC BORROWING

To prevent bankruptcies or defaults, constitutional and statutory restrictions on borrowing have been established in most of the states. These restrictions limit the borrowing capacity of the states and local governments to certain proportions of the assessed valuations or to certain maximum amounts, and sometimes require in addition the submission of every bond issue to a referendum.

DEBT LIMITS

These restrictions have proved quite effective, and have undoubtedly prevented a number of municipal bankruptcies; but they do not constitute an absolute preventative. As long as governments borrow for every permanent improvement and fix the term of the bonds in each case according to the life of the improvement, the pressure against debt limits becomes so great at times as to bring about their modification in the form of increases of the maximum percentage of assessed valuations or of the maximum amount for which borrowing is permitted, or special exemptions for certain classes of bonds, such as those for schools, sewers, water, rapid transit, and the like.¹ The barriers are let down and the flow of borrowing proceeds on its uncertain but threatening way.

¹ For references on debt limits see Horace Secrist, *An Economic Analysis of the Constitutional Restrictions upon Public Indebtedness in the United States*, Bulletin no. 637 of the University of Wisconsin, 1914; *Constitutional Restrictions on Municipal Indebtedness*, Bulletin no. 14 of the Massachusetts Constitutional Convention 1917-1918; *Constitutional Restrictions on State Debts*, Bulletin no. 15 of the Massachusetts Constitutional Convention 1917-1918; and Lane W. Lancaster, *State Supervision of Municipal Indebtedness*, 1923.

But even if a bankruptcy or default were never to be reached, there is still one evil which can hardly be avoided in an all-loan policy—the blocking of future improvements.

Reaching the Debt Limit. At the present rate of borrowing for permanent improvements in states and cities, all are bound, sooner or later, to reach their respective debt limits. Many in fact have already reached it. The following figures show the situation in the five cities which have been selected for special study:

TABLE VIII

City	Percentage ratio of net debt to assessed valuation of real estate		Debt limit (per cent of assessed valuation of real estate)
	1902	1927	
New York City.....	9.8	9.0	10.0
Boston	5.8	5.7	2.5
Detroit	2.8	7.7	12.25
Los Angeles	4.6	15.3	15.0
San Francisco	0.2	12.9	15.0

When a government has reached its debt limit, it can borrow only by increasing its assessed valuations. Even if it disregards the law and issues bonds in excess of the limit, it will soon discover that the bonds cannot easily be sold. No responsible bank will underwrite bonds issued in excess of a debt limit, or advise the customers to buy them.

The government may appeal to the legislature for an extension of its borrowing capacity or for exemption of a particular bond issue from the debt limit. But even if the legislature should grant its demand, the relief obtained thereby will be only temporary. As new needs arise, the new debt limit is reached just as the old one had been, and new extensions and exemptions are necessary.

What avenues of escape are open to the government under such circumstances? It can modify its policy and attempt to raise the necessary amounts from current taxation or special assessments; but it can do so only to a limited extent. The taxpayers and property owners usually will not permit a large increase in the tax rate, or an ex-

tension of special assessments into new fields. Thus the government is compelled to forego needed improvements until its financial condition has improved. The progress of the community is thus temporarily impeded.

Retrenchment in expenditures for permanent improvements sometimes begins before the debt limit has been reached. The government officials select some of the needed projects for execution and postpone others because of the dearth of funds. The natural tendency for an administration, under such conditions, is to use up the remaining borrowing power, and to leave the solution of the problem to the next administration.

The Debt Limit of New York City. The process just described, and the results, may be illustrated by the experiences of the city of New York. After Tweed ran up the city's debt in 1870-71 to a figure which shocked the people, the succeeding administrations abstained from extensive borrowing and reduced the city's debt. In 1884, when the 10 per cent debt limit was established by the constitution, the city found its indebtedness to be within that limit. In the following twelve years, few extensive works were undertaken and so little was borrowed that the debt was well within the limit and in fact no one bothered even to compute what the debt limit was. In 1896 and 1897, however, the city undertook large public works and increased its debt. Consolidation brought into the city Brooklyn and some other localities overburdened with debt. As a result the city found itself on January 1, 1898, the date of the consolidation, with an indebtedness of \$232,000,000, which about represented the constitutional debt limit.

Then followed a rapid expansion of the city involving large construction projects and large bond issues for schools, streets, water supply, bridges, docks and ferries, and various miscellaneous improvements.¹ Since it was apparently

¹ The amounts of bonds issued during the years 1898-1907 were as follows: schools, \$72,000,000; streets, \$72,000,000; water, \$52,000,000; bridges, \$16,000,000; docks and ferries, \$15,000,000; public buildings, \$12,000,000 (Edgar J. Levey, *New York City's Progress Towards Bankruptcy*, 1908).

impossible to finance the construction of the Catskill water supply system within the debt limit, the constitution was amended in 1905, exempting from the debt limit of the city all water bonds issued since January 1, 1904.

By January 1, 1908, the debt had increased two and one-third times, reaching the total amount of \$537,000,000. The borrowing capacity of the city was exhausted despite the exemption of the water bonds. According to the comptroller, there was left a margin of only \$3,000,000. According to the New York Bureau of Municipal Research, the margin was only \$356,750. Yet the city was about to venture on a program of subway construction and other large improvement projects, for which bonds were authorized to the extent of more than \$180,000,000. The president of one of the real estate associations, acting on the initiative of the comptroller, instituted proceedings to enjoin the board of estimate and apportionment from approving contracts for the construction of new subways on the ground that the city's constitutional capacity to borrow was insufficient to provide the necessary funds. While these proceedings were pending, efforts were made to secure an amendment to the constitution exempting bonds issued for revenue-producing improvements to the extent to which the revenues should cover debt charges. These efforts succeeded in November, 1909, when an amendment to that effect was approved by the people. Thus provided with an extended borrowing capacity, the city proceeded with the construction of the subways and resumed its other improvement projects.

Five or six years later, however, the city again reached the debt limit, despite the extension. It could borrow each year only to the extent of the annual increase in the assessed valuations and sinking funds, and the liquidation of the old debts. Although the schools were congested, the city was unable to increase the speed and extent of school construction. The construction of new subway lines was also held up in part because of the exhaustion of the city's borrowing powers. A general slump in almost all the ex-

penditures for permanent improvements followed during the next seven or more years (See Chart IV).

In the last years of the Hylan administration (1918-1925), expenditures of this nature were revived, especially for school construction, docks and ferries. The margin of the borrowing capacity being insufficient to take care of the large accumulated needs for subway construction, agitation was begun for the passage of a constitutional amendment that would make possible the issue of \$275,000,000 of bonds for subways outside the debt limit.

The administration of Mayor Walker, which began in 1926, secured the passage by the legislature of a resolution providing for the submission of that amendment, with the amount increased to \$300,000,000, to referendum vote. The amendment was approved by the people in November, 1927. But the present program of subway construction and acquisition (or "recapture") amounts to almost two billion dollars. Only by utilizing the greater part of the borrowing margin and proceeding slowly with or actually suspending a great many of the other improvements will New York City be able to carry out this program. Unless it changes its methods of financing the city will once more exhaust its debt-incurring margin and be unable to finance its public works; it will face another emergency, and how it will meet it, no one knows.

The extension of the debt limit, approved by referendum in November, 1927, will have no more permanent effect on the city's borrowing powers and ability to execute improvements than other past extensions have had. The city will continue to be in difficulties so long as it is limited to its present resources and the tax rate of 2 per cent, and continues to borrow on long terms for all expenditures for permanent improvements.¹

¹ In an editorial, entitled "City Finance by Stagger," the *New York Times* on July 23, 1926, said:

"For an indefinite number of years, therefore, it seems fated that municipal finance in New York shall not move forward in balanced and orderly fashion, but that we shall stagger from one distress to another. At

Similar situations will be found in scores of other cities. Almost everywhere city debts are approaching the constitutional or statutory debt limits, and the borrowing margin available for the incurrence of new debt is shrinking.

WEAKNESSES OF DEBT LIMITS

Debt limits are arbitrary and artificial, and in many cases do not correspond to the economic resources of the communities affected. They are often too restrictive and illogical. The whole scheme of limitation of municipal indebtedness is, in fact, lopsided and full of inconsistencies.

Lack of Uniformity. First of all, there is no uniformity between the states as to what constitutes a proper limit of municipal debt. Some states fix the limit at 2, 3, or 5 per cent of the assessed value; others at 7, 8, or 10 per cent; still others at 12 or 15 per cent. Some take into account only the assessed value of real estate, while other states consider both real and personal property.

Secondly, there is no uniformity among the states as to the character of bonds which should be exempted from the debt limit. Among those which may thus be exempted in one state and not exempted in another are: bonds for certain classes of revenue-producing enterprises such as water supply, school bonds, and special assessment bonds.

The state of New York, while fixing the debt limit for New York City at 10 per cent of the assessed value of real

the present moment the transit situation is intolerable. It is being met, in the way of new subway construction, by straining the city's resources to the utmost. . . . But long before the rails are being laid in the new tunnel, the city will be compelled to face the problem of starved schools and delayed improvements. Whereupon the city will stagger forward to the new distressing situation. It promises to be the most distressful municipality that ever you did see. Rushing from one breach in the dike to the next, living from hand to mouth and in a perpetual sweat—the process may not seem particularly anomalous to the optimistic citizens of the metropolis of the most optimistic nation on earth. . . . Before seven years have elapsed another and greater building boom may have struck the city, and real estate assessments may be topping the dreams of avarice. In the meanwhile, one can borrow here and postpone there, and trust to luck everywhere, and so govern the richest city on earth."

estate, exempts the following classes of bonds from that limit: water bonds, bonds for self-supporting docks and subways (including a special issue of \$300,000,000 of subway bonds in advance of the subway's becoming self-supporting), revenue bonds, and special revenue bonds.

Michigan has fixed the debt limit for cities at 10 per cent, with an additional 2 per cent, if voted, for rapid transit, and $\frac{1}{4}$ of one per cent for public libraries. But exempted from this debt limit entirely are all school and special assessment bonds.

Massachusetts, though fixing the debt limit at $2\frac{1}{2}$ per cent, permits the cities to borrow for certain specified purposes, under a special authority from the legislature. Consequently, many cities, Boston included, have a larger indebtedness outside of the debt limit than they have inside. In some states, too, cities are permitted to borrow outside of the general debt limit if the debt is issued as a mortgage against certain specified public properties. Thus Michigan permits the issue of mortgage debt, for the financing of municipal utilities, up to another two per cent of the assessed value of the property.

The Overlapping of Local Governments. One of the greatest weaknesses in the existing debt-limit situation is the fact that some communities have several overlapping local governments, each of which has separate debt-incurring power.

Thus where the city corporation and the county have each a debt-incurring power limited to 10 per cent of the assessed value, the city, which is subject to the jurisdiction of both governments, may really be bonded several times the extent to which it may be bonded by the city corporation.

Not infrequently, having exhausted the borrowing powers of the city corporation, the community vests the county, which may still have a liberal margin in its debt-incurring power, with the duty of acquiring or executing certain properties that under other conditions would have been the

function of the city corporation. The community may also secure from the legislature the power to establish a special authority with separate power to bond. More than one community has managed in this way to escape the debt limit in pressing circumstances.

Thus Milwaukee has charged the county with the execution of large sewer works because these could not be financed within the city's debt limit. Indianapolis created a sanitary district, practically co-extensive with the city, to take charge of various sanitation projects and services. Chicago established, during the past half century, a sanitary district for the construction and maintenance of a great sewer system, a forest preserve district for the acquisition and maintenance of a ring of forests outside and around its boundaries,¹ and a number of park districts for the establishment and maintenance of parks in different sections of the city. The constitution of Illinois grants to each county and municipal corporation (which is held in Illinois to include school districts and other special districts) the power to incur debt up to 5 per cent of its assessed valuation. The city has six such overlapping governments, or classes of government, and may thus really be bonded up to 30 per cent of its assessed valuation.

Contrast these situations with that of New York City in which there is but one local government possessed of a power to borrow against the city's credit, the county debt and school debt being included in the city's debt limit of 10 per cent.

The extent to which debt is incurred in the principal cities of the country by local governments, in addition to the city corporation proper, is shown in the following table:

¹ There were, of course, also other reasons for the establishment of the sanitary district: some of the works had to be executed outside the limits of the city and the latter could not very conveniently exercise extra-territorial powers in the matter. The forest preserve district is really managed by the county authorities. It was created in order to finance the project outside the county's debt limit.

TABLE IX

INDEBTEDNESS OF CITIES OF MORE THAN 500,000 POPULATION IN 1927¹

City	Gross Indebtedness (in millions of dollars)			
	City corporation	School district	Other local governments	Total
New York	\$2,452	..	..	\$2,452
Chicago	179	\$19	\$166	364
Philadelphia	438	56	..	494
Detroit	283	..	8	291
Cleveland	136	32	23	191
St. Louis	45	2	..	47
Baltimore	161	..	..	161
Boston	143	..	..	143 ²
Los Angeles	150	60	20	230
Pittsburgh	63	22	48	133
San Francisco	87	..	..	87
Buffalo	91	..	8	99
Washington . . . . .	..	..	..	..
Milwaukee	38	..	16	54

Some authorities maintain that debt limits should be applied territorially in each case. This may seem a simple solution. But could the borrowing powers be apportioned among the several overlapping authorities without at the same time robbing them of their independence and introducing confusion into the government of the territory? Furthermore, unless the debt limits were greatly extended at the same time, such a shift in the basis of the debt limitation would result in a great curtailment of the community's credit. After all, evasions of the debt limit have occurred to a large extent because the limits are too restrictive.

Variation in Assessment Methods. The greatest inconsistency in the application of debt limits is traceable to the widely-varying differences in methods of assessing real and personal property. Consequently, a debt limit of a certain percentage of assessed value may mean a very different thing, in relation to the true wealth of the community, in different communities or even in the same community at

¹ *Financial Statistics of Cities, 1927*, table 20.

² The United States Census Bureau has failed to include in the indebtedness of Boston, the portion of the debt of the Massachusetts metropolitan district on the theory, apparently, that the district is not a "local government." Yet this debt differs from a strictly state debt as it is incurred for local purposes and is being supported and liquidated by assessments on the localities. It should have been included in this tabulation.

different times. A community which has reached the debt limit may secure its extension by the simple expedient of raising the level at which it assesses property. This is frequently done.¹ If the community cannot do this, it is prevented from borrowing, even though borrowing may be entirely justified in the case and "despite the fact that the debt limit, measured in terms of actual property value, in reality has not been reached."²

The great degree to which the communities in this country under-assess property may well be illustrated by the following table compiled from the figures of the United States Census Bureau:

TABLE X
PROPORTIONS OF TRUE VALUE AT WHICH CITIES OF MORE THAN 30,000
POPULATION ASSESSED REAL ESTATE IN 1927³

Number of cities	Percentage of true value
95.....	90 to 100
36.....	80 to 89
36.....	70 to 79
35.....	60 to 69
18.....	50 to 59
10.....	40 to 49
16.....	20 to 39
4.....	10 to 19
<hr/>	
250	

Such variation in levels of assessment has prompted Secrist to indict this scheme of debt limitation in the following unscathing terms:

Underassessment and variation in assessment are common to all tax jurisdictions. The inequities of the general property tax are extended to

¹ For example, assessments were doubled in Chicago in 1927 for the purpose of increasing the debt-incurring power of the city.

² Secrist, *An Economic Analysis of the Constitutional Restrictions upon Public Indebtedness in the United States*, p. 87.

³ *Financial Statistics of Cities*, 1927. For similar compilations for the years 1908 and 1919, see Secrist and Lancaster, *op. cit.* For data as to under-assessment of property in different communities of the same state, see, for example, the annual reports of the New York State Board of Equalization of Taxes and also an article by the writer on "Inequalities in Assessments in New Jersey," published by the New Jersey State Chamber of Commerce as *New Jersey*, March, 1924, vol. XI, no. 3.

the domain of public borrowing, and discrimination between localities similarly situated, with similar needs and with equal ability to satisfy them, is thus inevitable. Control and regulation are conditioned upon the success or failure of our local tax officials in the assessment of a tax no longer suited to our complex industrial life and our varied classes of properties. Such a scheme of control is not only unscientific but absolutely indefensible. It permits an increase in the amount of debt and a decrease in the proportion of taxes by the simple device of increasing the assessed value and lowering the tax rate. Such a thing is more than speculation. It has been practised time and again. But even if it should never be resorted to, the possibility of so doing and the incentive to do so are always present. Thus the *raison d'être* of regulation—the guaranty of equality between the present and the future taxpayers—is completely negated.¹

Assessed Value Not Related to Debt-paying Ability. Assessed valuation has been adopted as the basis for debt limits because it is believed to indicate a community's wealth and, consequently, its tax-paying ability upon which its credit must largely rest. But granting that assessed value is indicative of the wealth of the community, and that the amount of wealth which can be taxed is *some* indication of the community's tax-paying and debt-paying ability, is it a *sufficient* or *conclusive* indication?

After all, tax-paying ability is dependent upon many other factors than merely the amount of taxable wealth in the community. It is dependent also upon the degree to which the community is willing to tax the wealth. This willingness depends, in turn, upon the social-mindedness of the community and other characteristics of its population; the character of its government; the objects for which taxes are raised and loans incurred, and the return which the community gets on what it spends; the present tax rate; the distribution of the taxes among the members of the community; the economic prospects of the community; and other similar factors.

The difference between the respective abilities of two communities to bear taxes in the future, which is involved in the incurrence and payment of debt, may be even greater than the difference between their present tax-paying abilities, because of a possible difference in their rate of growth,

¹ Secrist, *op. cit.*, p. 90.

their economic stability, the character of the improvements projected, and the rate of civic and governmental progress.

If the credit of each community is thus dependent upon a number of varying factors, is it not obviously unsound to set up one factor, by no means the most conclusive, as the final determinant of what should be, under all conditions, each community's debt?

Assessed Value Not Related to the Need for Credit. The requirements for new public properties must necessarily increase, and in some cases more rapidly than the assessed valuation, because the acquisition or construction of these properties anticipates, or forms a basis for, a future increase of the community's wealth.¹ Its indebtedness must be allowed, therefore, to increase faster than the assessed value in order to bring about this increase in wealth. How can this be done, however, if the indebtedness is limited by law to a certain proportion of the assessed valuation?

A debt limit of 10 per cent of the assessed value may be more than sufficient in the case of a slowly-developing, conservative community, but altogether insufficient in the case of a progressive, rapidly-developing community. If the rapidly-developing community is established on a stable economic basis, if it is governed well and its finances are in good order, if the prospective public improvements are well conceived and are likely to contribute greatly to its future prosperity and growth, if it owns much valuable property, and if its credit is good on the market, there is no reason why, economically speaking, it should not be allowed to

¹ The New York Charter Commission of 1921-23 made the following observation on this point in its report on a proposed new charter for the city (p. 37): "It is axiomatic and susceptible of verification that, in a community situated as is New York City, the public requirements must increase more rapidly than does the value of its taxable property, for the increase of value is the product of the increase of business which cannot occur beyond narrow limits without provision in advance for the facilities which are necessary to the expansion of population and territory which in turn are essentials of the expansion of business. We see an example of this in the existing need of transportation facilities which demand investments so much greater than any probable returns will justify, that private capital declines to provide them."

borrow in excess of any such debt limit. On the other hand, if its economic basis is not firm, if its development is highly speculative, if its government is of a poor caliber and its finances are in bad condition, if its projected investments are of doubtful merit, if its credit on the market is low, it should not be allowed to borrow even to the extent of 10 per cent of its assessed value.

Assessed valuation is not a proper basis for the limitation of municipal indebtedness because it has nothing to do with the needs of communities for credit, and results often in unjustified interference with necessary and legitimate borrowing.

BOND REFERENDA

As a scheme of control of public borrowing, the referendum is a very clumsy device. It leads to the decision of the question, whether bonds should be issued, by political manipulation or accident, rather than by consideration of what is a sound financial policy. The public officers, who have or can get the facts, shift responsibility for the decision to the voters who, not having the facts and being unable to obtain them, are not in position to pass an intelligent opinion. The problems of fiscal policy involved in bond proposals are too complicated for a "yes" or "no" answer. The requirements of referenda make borrowing either very difficult, as shown by their operation in some governments (principally the states), or very easy, as shown by their operation elsewhere. They result in extreme policies—either of opposition to all borrowing or of indiscriminate approval of all borrowing—according as the people have been made to fear the creation of a debt as an evil or taught to welcome it as a blessing.

The qualification so common in the existing constitutional provisions or statutes that each bond referendum must cover "a single work or object" results either in the concentration of borrowing on some objects and neglect of others, or in the simultaneous submission to the people of

a great number of referenda (or propositions) covering different items. The voter for obvious reasons cannot be well informed on the several questions involved.

Authorization of Bond Referenda. The New York State Legislative Committee on Taxation and Retrenchment, after holding hearings on the question, recommended in its report of 1920 that the requirement, applying to many third-class cities, of a referendum on each proposed bond issue, be abolished, and that the city authorities be vested with complete power to authorize such issues:

In many of the third-class cities represented at the hearings, it appears that popular approval is necessary for the issue of bonds amounting to more than a certain expressed amount, or of bonds issued for other than certain purposes. Batavia is the only such city that confessed to a heavy vote on bond issues. In Elmira the vote was estimated at only 10 per centum of the voters, in Little Falls 33 per centum, and in Geneva 50 per centum. It is invariably the opposition rather than those in favor of the project that comes out for the vote on these occasions. Extraneous matters are usually brought in, with the result that the electors often refuse to authorize the issue of bonds for projects that have already been popularly approved. The most extreme example of delay resulting in financial loss was that cited by Mayor Wilson of Newburgh, who estimated that the city lost from \$800,000 to \$1,000,000 because of the delay in approving a bond issue for waterworks. It was only after it had been voted down three times that it was finally approved. The bid for construction was itself increased from \$280,000 to \$610,000 at which latter figure it was finally approved. In all of these cities the officials were insistent that such approval be dispensed with because of the ill effects of this requirement.

There seems to be much reason for the change desired almost unanimously. The people are busied with their individual affairs. It is because of their pre-occupation that they have no time to attend to public matters and they thus are compelled to choose by election officials who shall act as their representatives in all matters affecting the public welfare. Naturally the private citizen is not in the position to know the state of affairs, whereas his official representative is. The private citizen is not in the position to know the facts of the situation and the requirements to meet those facts. He must necessarily defer to the knowledge and judgment of his official representative, even if it means suffering because of his having made an unwise choice in the selection of that representative. Otherwise the citizen unquestionably is in no position to ask for any accomplishment on the part of officials whose hands he has tied.

It is therefore recommended by this Committee that the governing body of the municipalities be given the power to authorize bond issues. In order, however, to prevent any bond issues being forced through in the face of unquestioned popular disapproval, such power should be subject in third-class cities to referendum on petition of a substantial portion of the voters.¹

¹ New York State, *Legislative Document (1920)* no. 80, pp. 73-74.

Anderson takes a similar view, maintaining that the council should be made completely responsible for the finances of the city and "should be permitted to borrow money on the bonds of the city without being able to shift the decision to the voters, and without being compelled in each case to obtain their approval."¹ He concedes, however, that it may be desirable to require a referendum on any bond issue voted by the council, upon petition of 5 to 15 per cent of the qualified voters.

The time seems ripe to abolish the requirements of referenda for the issuance of bonds by the states, and to vest the legislature with power to issue bonds without the approval of the people. The abuses of state credit by the legislatures ninety years ago should not be held against the legislatures of today.

Doubt may be expressed as to whether this restriction of state borrowing was necessary. The abuses of state credit of those early days probably could have been curbed without resorting to this drastic device which has worked to prevent, not only unsound borrowing, but sound borrowing as well. At any rate, this restriction is entirely out of place today when the conditions differ materially from those which obtained when it was introduced.²

The recent tendency in some states (New York and Pennsylvania, for example) to evade the referendum requirement by constitutional amendment, permitting the legislature to issue bonds for certain amounts or for certain projects, does not basically change the situation. It offers temporary relief in given cases, but otherwise leaves the situation as it is. As soon as the authorization is used up,

¹ William Anderson, *American City Government*, p. 594.

² Secrist (*op. cit.*, p. 47) writes: "If the purpose of the restrictions on the financial powers of the states was to prohibit the use of credit, they have served it well. If the restrictions were intended to take the states out of the industrial field, they have been equally successful. That the purpose in mind was often of this double character, there can be no doubt, but that such was in every case a policy of wisdom may be questioned."

it becomes necessary to amend the constitution again in order to secure the renewal or extension of the authorization.¹

Possibly a provision permitting the voters to demand a referendum by petition, combined with a general provision giving the governing body the power to issue bonds without popular approval, might be applied in some states as a substitute for the present blanket requirement of bond referenda in all cases. In most states, however, nothing short of a complete removal of the bond referendum would afford a remedy.

SUMMARY

Debt limits have worked to prevent the accumulation of heavy debt charges and the occurrence of bankruptcies or defaults; but they have not induced government authorities to follow a different financial policy from that to which they had become accustomed. As long as there is a free margin in their debt-incurring power, governments generally finance all expenditures for permanent improvements from loans. As soon as the margin narrows down to a very small annual amount, the governments curtail expenditures to the extent to which they still can borrow. They stick, in other words, to the all-loan policy, and resort to taxation to finance these expenditures only in the most extreme cases. Debt limits thus begin to function only after borrowing has been already used excessively and without regard to future needs. They are ineffective while the debt is growing, and become operative only when it is approaching the limit. Then they restrict the state or municipality in a drastic way. So far as their effect on unsound borrowing policies is concerned, debt limits are *ex post facto* corrective measures or penalties rather than preventatives.

Theoretically, provisions for bond referenda should permit borrowing for extraordinary improvements and prevent

¹ Thus the constitution of Pennsylvania was amended in 1918 permitting the legislature to issue bonds for highway construction for \$50,000,000 without submission of the question to a referendum, and was amended again in 1923, increasing the amount to \$100,000,000.

its use for ordinary ones. In actual practice, however, they have not brought about this result. In some states, bond referenda prevented borrowing altogether for many years. In the municipalities, on the other hand, they have failed to stand in the way of an all-loan policy; extraordinary improvements and ordinary ones, major projects and minor ones, are all frequently combined in consolidated loan proposals and approved by the people. Bond referenda have thus failed to result, either in the states or in the municipalities, in a balanced financial policy. By the very nature of things they are bound to result in extremes.

CHAPTER V

ALL-LOAN VS. NO-LOAN POLICY

As stated above, an all-loan policy is defended for the financing of permanent improvements because of their supposedly extraordinary nature. It has been demonstrated, however, in Chapter II, that not all such expenditures are extraordinary; that, in fact, a large part of them are ordinary. Hence, the policy of borrowing for all permanent improvements rests upon a false premise.

Equally erroneous is the other premise—that each generation using the particular improvement should contribute to its costs. It overlooks the fact that each improvement project, as shown in Chapter II, is part of the total plant of the government. The successive improvements, the services which they perform, and their costs, in a way offset each other. Each generation inherits certain improvements from the past, and passes on to the future generation its own improvements together with the remainder of what it has inherited. There is no need for a complete settlement in money. There is no need for the distribution of the costs of each improvement over the future in order to secure this settlement of accounts.

The whole scheme of distributing, over a period of years, the costs of all improvements produced during the year appears illogical. It overlooks the fact that, along with the production, a consumption of improvements is in progress each year. Naturally, only the excess of annual production over annual consumption, which constitutes a net addition to the property of the government, is passed on to the future. Obviously the costs of that part of the year's production which theoretically offsets the year's consumption, *i. e.*, merely replaces worn-out property, should be assessed against the operations of that year. Such costs should be

defrayed from current taxation, so that the generation causing the damage to the plant will pay for it. To assess these costs on future generations by borrowing for this replacement work, as is now the widespread practice, is unsound. It has no more justification than would borrowing for the costs of other current operations at the expense of future generations.

Neither is there any justification, from this point of view, for borrowing for the costs of any normal, or less than normal, additions to the property of the government, at the expense of future years or generations. Inasmuch as future years and generations will, normally, make as large or even larger additions to the property, the costs of each year's normal addition should be defrayed from the taxes of that year. The costs of only such additions to the plant as are above the normal can properly be charged to the future and financed by means of borrowing, consistently with the doctrine that borrowing should be used for extraordinary expenditures.

SMALL SAVINGS IN IMMEDIATE COSTS

The argument that borrowing for permanent improvements reduces the immediate costs to the taxpayers has some merit, but not as great as commonly claimed.

When the total expenditures for permanent improvements are compared with the total annual debt service, it is found that the immediate reduction in cost is not as large as it seemed when considered in terms of a single expenditure and a single loan. It is not at all a reduction from 100 per cent of the cost, to the interest and redemption charges representing 7 per cent of the cost.

The reduction in immediate cost is very large only in the early days of borrowing, when there are only a few bond issues and when the debt charges are small. As the number of bond issues increases, the debt charges likewise increase. The margin between debt charges and the amount expended annually for permanent improvements grows narrower and

sometimes disappears entirely. The saving from borrowing thus decreases and even turns at times into an actual loss.

Charts I and II show the gradual narrowing of the margin between the expenditures for improvements and the debt charges. In 1896, when the bonds for schools were issued in Newark, the debt charges amounted to only 9 per cent of the expenditures for improvements executed that year. In 1924, however, they amounted to 80 per cent, and twice during the intervening period they exceeded the expenditures for permanent improvements. The aggregate debt charges for the twenty-nine years amounted to 69 per cent of the costs of the improvements executed during the period.¹ When the first bonds for New York City's water supply were issued in 1837-38, the debt charges amounted to from 6 to 13 per cent of the expenditures for permanent improvements made that year. In 1922, they amounted to 100 per cent, and eight times during the intervening period they exceeded the latter expenditures. The aggregate debt charges for the entire eighty-five years amounted to 82 per cent of the aggregate expenditures for permanent improvements for the period.²

During the years 1903-1927, the combined debt charges of the cities of more than 30,000 population amounted, on the average, to 45.8 per cent of their combined expenditures for permanent improvements, as can be seen from Table XI. The ratio was higher than this during the period 1915-1919, when the expenditures for permanent improvements were low. It was below this figure during the other periods when these expenditures were high.

¹ The proportion of debt charges in the case of the Newark schools is relatively small because the full period for the maturity and amortization of the debt has not yet elapsed. The bulk of the bonds have been issued in the past fifteen or twenty years, and they run for periods ranging between thirty and fifty years. The crop of debt charges at present is therefore not complete. The proportion is bound to increase over a longer period.

² These proportions are slightly below the real figures, as the amounts paid for redemption of the debt during the years 1837-92 are not known and are therefore not included in the total debt charges.

TABLE XI

DEBT CHARGES AND EXPENDITURES FOR PERMANENT IMPROVEMENTS OF
146 CITIES OF MORE THAN 30,000 POPULATION

Year	Expenditures for permanent improvements (in millions of dollars) ²	Estimated debt charges (in millions of dollars) ¹	Percentage ratio of estimated debt charges to expenditures for permanent improvements
1903.....	171.7	64.5	37.5
1905.....	182.8	77.8	42.5
1907.....	238.8	88.8	37.1
1909.....	255.7	107.8	42.2
1911.....	295.2	123.3	41.8
1913.....	289.2	132.9	46.0
1915.....	305.9	155.1	50.7
1917.....	262.8	166.4	63.3
1919.....	235.1	182.6	77.7
1921.....	540.8	291.9	54.0
1923.....	570.2	258.5	45.3
1924.....	712.7	272.0	38.2
1925.....	850.0	297.1	34.9
1926.....	832.7	327.2	39.3
1927.....	949.1	352.4	37.1
Average.....			45.8

Why were the aggregate current debt charges generally smaller than the aggregate current expenditures for permanent improvements? Why should not the reverse be the case, inasmuch as the debt charges include the expenditures plus interest? The debt charges represent much smaller expenditures made years before when the community was much smaller and when governmental services were much less extensive. The difference between the expenditures of those days and the expenditures for the current period is generally much greater than the 4 or 5 per cent represented by the interest.

So long as the expenditures for permanent improvements continue to increase at a rapid rate, it pays to borrow. But as soon as the conditions change and the trend of the expenditures for permanent improvements slows down substantially, the debt charges begin to equal and soon even to exceed the current expenditures for permanent improve-

¹ Redemption charges estimated at one-half of interest charges as reported by the United States Bureau of Census.

² As reported by the United States Bureau of Census. Includes expenditures for equipment.

ments. The policy of borrowing becomes, for the time being, more expensive than the policy of paying for the expenditures from current taxation. This happened, for example,

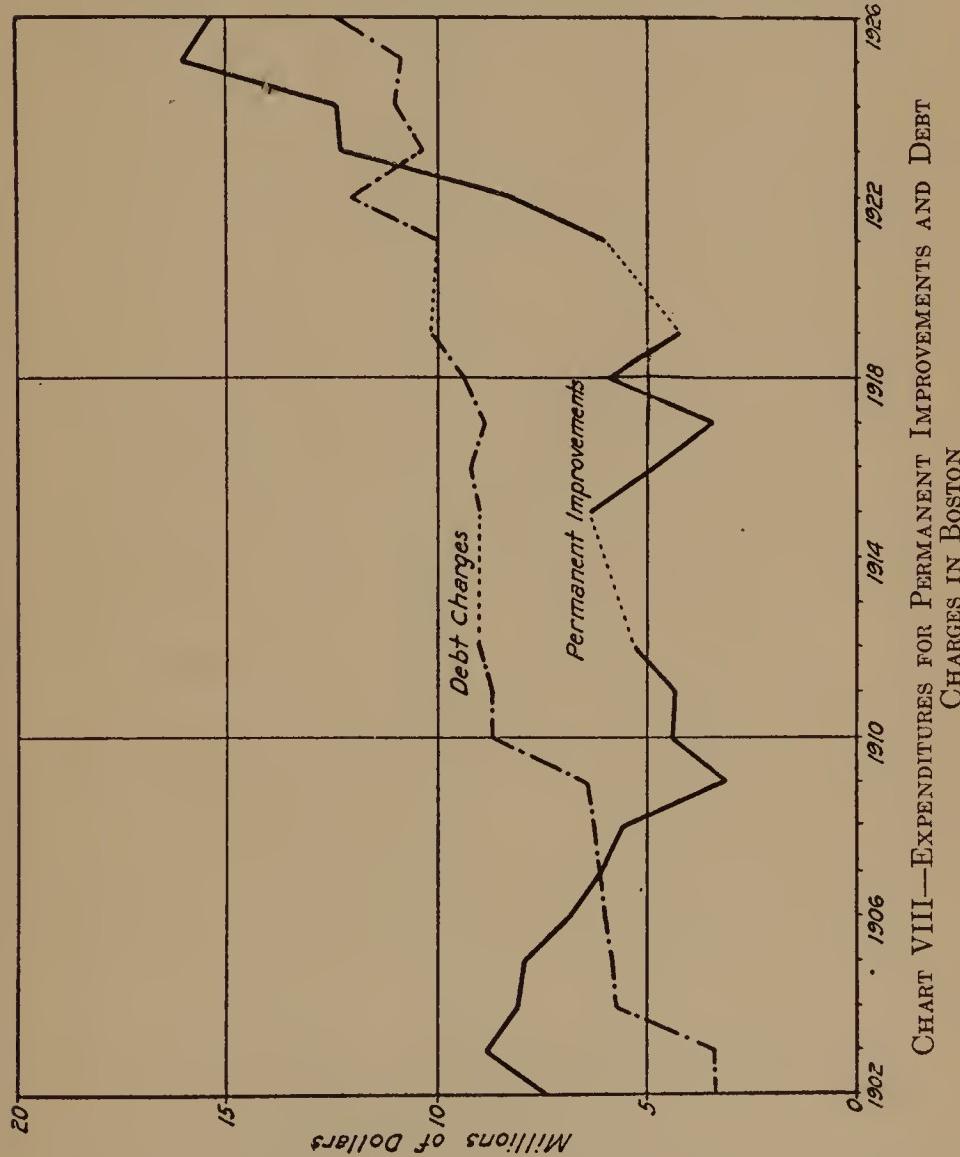


CHART VIII—EXPENDITURES FOR PERMANENT IMPROVEMENTS AND DEBT CHARGES IN BOSTON

in Boston during the period 1907-1923, when the city's expenditures for permanent improvements were relatively low, as can be seen from Chart VIII.¹

¹ The same thing happened in New York City during the second decade of the present century.

LARGER ULTIMATE COSTS

The immediate savings obtained annually, or over a period of years, by borrowing are offset by the large debt outstanding. The total debt charges over a period of years, which, as shown, are generally smaller than the expenditures for permanent improvements for the same period, do not represent all the resultant debt charges. If the amounts still due on their account were added, the complete costs of borrowing would be obtained and would be much greater than the actual costs of the improvements. The plan of borrowing is more expensive in the end than the plan of current payment, the interest paid or to be paid constituting the difference.

Thus, in the expenditures for the water supply system of the city of New York, and for school construction of the city of Newark, debts outstanding at the end of the period were \$229,000,000 and \$12,000,000, respectively. With future interest charges, the cost will total more than \$300,000,-000 and \$18,000,000, respectively, before the debt will be amortized. These amounts, added to the \$207,500,000 and \$9,200,000 already paid, will bring the total payments under this plan to about double the amount required for payment from current taxes.

A city or state may be able for a while, by continuing the policy of borrowing and pyramiding the debt, to delay the time of payment of this extra cost. But it cannot keep on doing so indefinitely. The debt must be paid at some time.

Is this extra cost justified? Manifestly, it is not an altogether wasteful expenditure. It is payment for the benefit of extra funds obtained at the time of the execution of the projects, over and above the amounts raised by taxation (the debt charges). It is a payment to the money lenders for the use of their money.

In considering the costs of borrowing, it is necessary to make a distinction, however, between the costs to the government and the costs to the community. The costs to the government may be represented by the interest payable on

the loan (less sinking fund earnings, in the case of sinking fund bonds). But the costs to the community cannot be computed just that way. They are smaller than the costs to the government. For it is undeniable that some of the funds which have not been taken from the citizens in taxes because of borrowing are invested by them in private industry or in loans incurred by other communities. The citizens receive a return from these investments which in part offsets the costs of borrowing. When the citizens invest these funds in their own community's loans, no extra cost whatever is involved; there is merely a redistribution of the burdens within the community, the members owning the bonds receiving the principal and the interest partly from their own tax payments and partly from the payments of the other members of the community. To what extent this redistribution of the burdens takes place, it is impossible to say. Consequently, no exact computation of the costs of borrowing is possible. All that can be said is that the costs to the community are certainly smaller than the interest charges.¹

HEAVY BURDENS IN TIMES OF DEPRESSION

Borrowing for permanent improvements is also urged, as was stated, on the ground that the tax payments on account of these expenditures will be equalized or regularized from year to year. But the necessity for borrowing on that ground does not seem convincing. The desired equalization of tax payments can be secured by means of payment of the normal part of these expenditures from current taxes. Borrowing is consequently not the only means of equalizing the tax burdens for permanent improvements.

The tax burdens, under the policy of borrowing, are not as equally distributed in the aggregate of permanent im-

¹ For an exaggerated statement of this fact see Gaylord C. Cummin's article in the *National Municipal Review*, June, 1924, pp. 335-339. For a criticism of Mr. Cummin's statement, see T. D. Zuckerman's article in the *National Municipal Review*, August, 1924, pp. 430-440. See also Lutz, *Public Finance*, p. 523; and United States Chamber of Commerce, Report of Committee on State and Local Taxation, *Capital Expenditures*, pp. 23-24.

provements as they appear to be in a single project. The burdens of the generation that initiates the policy of borrowing are much lighter under this plan than the burdens of succeeding generations. The initial debt charges constitute but a small fraction of the costs of the improvements, whereas succeeding generations have to pay an increasing proportion of the costs. When the government is forced to curtail its expenditures for permanent improvements (along with other expenditures), the debt charges, which cannot be curtailed, begin to exceed the costs of current improvements. The plan of borrowing is, therefore, likely to place the heaviest burdens on the least prosperous periods. A number of municipalities have found themselves very seriously embarrassed at such times. No municipality or state can expect to grow at the same rate indefinitely. It is bound some day to encounter hard times, and then begin to feel the burden of outstanding debt.

The preceding generations may have borrowed for all their permanent improvements; but this is no reason for the present generation to do likewise. The contention that a change from this policy is difficult has slight merit. The change may be accomplished gradually over a period of years so that the burdens which the present generation may have to assume, due to the change, will not be too large in any one year.

HIGHER INTEREST COSTS

Another bad effect of an all-loan policy is that the rates of interest on bonds tend to be higher, in the long run, than under a more limited and judicious use of the borrowing powers. As the debt increases, the city must often offer a somewhat higher rate of interest to attract the bond buyer. This fact may be obscured by other factors, such as favorable economic conditions of the country, prevailing low levels of interest rates, and the financial standing of the particular community.

The state of Massachusetts prides itself particularly on the low rate of interest at which its municipalities can bor-

row, due to their relatively low debts. Theodore N. Waddell, director of municipal accounts of the Massachusetts department of corporations and taxation, says on this point: "If you will notice the market quotations on municipal securities, you will find that the cities and towns in Massachusetts are borrowing money at from $\frac{1}{2}$ to 1 per cent less than municipalities in other states. This of itself means a saving of millions of dollars in interest and is a direct saving to the taxpayer."

UNPLANNED AND WASTEFUL USE OF BORROWING POWERS

The practice of borrowing for various purposes without any coördinating plan or program is wasteful and dangerous. Emphasis is often placed on the value of the particular improvement as if this constituted a guarantee to the bond-holders of the payment of the principal and interest of the loan; as if they could attach the property in the case of a default; and as if there were no other pending projects of equal or even greater importance or value. Each loan is often authorized as if it in no way affected the ability of the government for securing loans for other purposes.

Manifestly, the loan is made, not against the particular improvement, but against the total borrowing credit of the government. This borrowing capacity is limited by the tax-paying ability of the community.

The borrowing power is limited, secondly, by the conditions of the sale of bonds. The sale of bonds is dependent upon the faith of the buyer in the ability of the government to meet its interest and principal payments; the attractiveness of the terms at which the bonds are offered, such as the rate of interest and terms of the bond; and on the general conditions of the bond market.

Borrowing power is limited, thirdly, by law. Practically every state limits in some form or other, by statute or constitutional provision, its own borrowing capacity as well as that of the local governments, as pointed out in the preceding chapter.

Every additional loan reduces the total borrowing capacity of the state or local government, and its ability to borrow for other objects. If loans are authorized separately and without any coördinating program, the borrowing capacity of the state or community may be easily dissipated on relatively minor objects. If it has used its borrowing powers unwisely, sooner or later a day arrives when the state or local government faces greater needs than can possibly be satisfied within its remaining borrowing capacity.

The confusion and chaos which result from separate, unplanned, and uncoördinated loans is well illustrated by the financial condition of New York City on June 30, 1908, as reported by the New York Bureau of Municipal Research:

With a borrowing capacity estimated by the comptroller at less than \$3,000,000, there were outstanding authorizations for the issue of additional stock exceeding \$180,000,000. . . . The improvements that these authorizations represented were not planned with reference to the city's ability to finance them, were not weighed in the light of other municipal needs, but were approved from time to time separately, and often without consideration either of those needs or the city's financial ability.¹

Separate Loan Funds. The loan funds are usually set up outside the budget and the expenditures made from them are not subjected to budgetary control, inasmuch as they are considered expenditures of an extraordinary nature. Each loan fund is generally independent of all the others, and the authority to spend each is entrusted to a different body—the highway bond issue to the highway department, the school bonds to the board of education, the park loan to the park commission, and so on. No central control is provided over the spending methods of these spending agencies. Frequently, no provision is made for the disposition of any balance. Each spending body is concerned in executing the particular work within the limits of the fund authorized for it, and it is not generally concerned with a potential surplus. Very seldom is there any balance left in these funds. Somehow or other, each fund is spent to the

¹ New York Bureau of Municipal Research, "New York City's Debt"; Brief Submitted to the Referee in *Levy vs. the Board of Estimate and Apportionment*, February, 1909.

last penny. If due economy were exercised, balances would be quite frequent, for the cost estimates, on which the authorizations of the loans are based, are usually very liberal.

The separateness of these loan funds usually does not permit the use of one fund for any other purpose. As a result, each fund must be maintained to meet the current expenditures required of it. Park bonds may be sold, and a separate park fund created, although a large amount of cash may be on hand at the moment in the highway construction fund; school bonds may be issued, when there is a large balance, which will not be needed for some time, in the hospital construction fund. The cash of the government is thus tied up in individual compartments, and much greater total balances must be maintained by the government on deposit in the banks than would otherwise be required. In maintaining these large balances, the government loses the difference between the 4 and 5 per cent interest rate on the bonds, and the 2 to 3 per cent interest rate on the deposits. This difference, in the case of a state or local government whose financial transactions are large, may amount to hundreds of thousands of dollars annually. The waste of money under this plan may, therefore, be considerable.

This earmarking of funds to individual purposes has no special advantages. It is not necessary for sound financing. It is not demanded by the money lenders, for it does not constitute to them a guarantee of the soundness of the particular bonds. Bond buyers want to know the general financial condition of the government. This plan is a survival of the period when the bond issues were relatively few and far apart, and when the financial operations of the governments were so unsound that this and other strait-jackets had to be placed upon them.

DISREGARD OF THE ABILITY TO PAY

The ability of the state or community to pay is disregarded under the traditional borrowing policy. Even though

the tax rate may be relatively low, and the proposed improvements could be easily financed from current taxes, the government must borrow under this policy, and must shift the burdens to the future when the tax rates may be much higher, the project to be executed larger and more costly, and the difficulties in financing them greater.

The failure, under the all-loan policy, to distinguish between ordinary expenditures for permanent improvements, which can readily be financed from current taxation, and the extraordinary ones which cannot be so financed, and to borrow for both, is likely to exhaust the borrowing power so that the government is unprepared for a real emergency. Public credit is being misused under the policy, for as Professor Lutz puts it:

Public credit . . . is a limited resource the supply of which should be conserved in the main for those circumstances and requirements which cannot be fitted readily into the normal scheme of current expenditures and revenues. If it is used for defraying costs which should really be met out of current revenues, there will be no reserve protection against real emergencies.¹

An all-loan policy may be justified in some cases as, for example, in communities which are yet in a relatively undeveloped state and lack the means for raising by taxation enough funds to meet even a part of the costs of development. It may be justified even in the most prosperous and developed communities in times of business depression, when it is imperative that the taxes be kept low and yet a certain amount of public work be executed. But it is certainly not justified in the cases of all communities and as a policy to be followed permanently under all conditions and at all times.

SHOULD BORROWING BE ALTOGETHER AVOIDED?

"The goal to which we should direct our continued efforts is a commonwealth without a debt," said Governor Alvan T. Fuller of Massachusetts in his inaugural address to the legislature of that state on January 8, 1925. That

¹ Lutz, *Public Finance*, p. 524.

the ideal condition for a state or local community is to be free from debt, is the opinion of other statesmen and some students of public finance. This opinion is induced, as already noted, by the belief that debt increases the cost of government, leads to extravagance, eventually restricts the government in its freedom of financial management, and threatens its solvency in times of adversity.

A number of governments have at some time or other been debt free; but few have succeeded in remaining so permanently. A state or municipality may get along without borrowing when it is still in the early stages of development. But as soon as it enters an era of rapid development, the expenditures begin to increase. The authorities then find it very difficult to get along without borrowing. Sometimes, too, a state or municipality manages to get along without borrowing, as long as it draws its support largely from indirect taxation or from special taxes which affect only a relatively small number of its citizens. But if it is dependent preëminently on general and direct taxation, the pressure to borrow becomes great. The experience of New Jersey is a case in point.

The state of New Jersey was the first to adopt a drastic constitutional restriction on borrowing. The constitutional restriction was adopted in 1842 and for almost eighty years the state incurred no debt. Until 1917 it had a relatively small budget and performed very few functions. Except for the construction of a few normal and special schools, penal or other institutions, and a state capitol, it executed practically no permanent public works. It raised large amounts annually from taxation of the extensive railway properties located in the state. It also raised large amounts from corporation taxes, motor vehicle licenses (in recent years), and other revenues.

- Since 1917, however, the state has taken on a number of new functions and expanded its former functions. It has built and maintained roads, built bridges and under-river tunnels, and greatly expanded its institutional plant. At

first New Jersey attempted to finance the improvements from direct taxes without borrowing. A one-mill tax was established for road construction. Immediately grumbling against the tax arose in both rural and urban districts. When the financing of other large projects was considered, there was little inclination among the political leaders to follow the same plan. The money was borrowed, and a direct tax was levied merely to finance the debt charges. The first proposal to issue bonds, amounting to \$14,000,000 for institutional buildings, failed to carry at a referendum. In November, 1920, however, a bond issue of \$12,000,000 for soldiers' bonus, and one of \$28,000,000 for the vehicular tunnel across the Hudson River and the Philadelphia-Camden bridge across the Delaware River, were approved by the voters. The one-mill tax, in the meanwhile, proved insufficient to finance road construction. Since it was evident that the taxpayers would object to any tax increase, a \$40,000,000 highway bond issue was submitted to the people in November, 1922, and was approved. An \$8,000,000 bond issue to complete the tunnel and bridge was voted in November, 1924, and another \$30,000,000 for road construction was approved in November, 1927. Thus, in the course of seven years (1920-27) a debt of more than \$100,000,000 was created where for a century or more there had been no debt whatsoever.¹

DISTRIBUTION OF EXPENDITURES BY PLANNING

By careful planning, can the expenditures for permanent improvements be evenly distributed from year to year? Undoubtedly, much can be done to regulate these expenditures. But there is a limit to the results of planning. Fluctuations in the amounts of expenditures cannot be eliminated altogether, because some of the variable factors cannot be readily controlled.

Certain expenditures, such as those for water supply, are cyclical and sometimes emergent in character, and cannot

¹ For a fuller discussion of this subject, see the author's report, *State Finances*, published by the New Jersey State Chamber of Commerce in March, 1924.

be executed without borrowing to some extent. It would have been quite impossible a century ago for the city of New York to finance, without borrowing, the construction of the Croton water supply, which required an expenditure of \$12,000,000. Likewise, it would have been quite impossible for the city of Los Angeles to have taken over the Edison Company's electric light and power system, the purchase price of which was \$13,000,000, and to write, as it did in 1922, a check for \$11,794,369 in payment of the property, if it had not borrowed for the purpose. Nor could the city of Detroit have bought, as it did in 1922, a street railway company at a price of \$35,000,000; nor the state of Massachusetts have purchased the Cambridge subway in 1920 for almost \$8,000,000, without having issued bonds for the purpose.

It often takes years of agitation to secure a public opinion favorable to a large improvement. Different groups press for different improvements. Public opinion is unstable and easily swings from one extreme to another, now demanding public improvements of various kinds, now clamoring for severe retrenchment. Administrations anxious to make an economy record will always find excuses for avoiding expenditures for permanent improvements and thus pile them upon succeeding generations. All these political factors will continue to make necessary a certain amount of borrowing from time to time.

As stated in Chapter II, changes in business conditions, changes in industrial and commercial methods, annexation of new territory, catastrophies, and other factors cause fluctuations in expenditures which at times necessitate public borrowing.

BORROWING IN TIME OF DEPRESSION

- In order to reduce unemployment, public improvements are sometimes increased in times of depression and are financed by borrowing since it would obviously be unwise to increase taxation at such time. Such a policy makes pos-

sible the execution of the projects more cheaply, inasmuch as prices and wages are generally lower in periods of business depression. President Harding's conference on unemployment of 1921 made the following pertinent recommendations which a number of economists have endorsed:¹

Holding back public works and private construction for periods of depression not only gives employment to large numbers of workers when it is most needed, but creates a demand for raw materials for construction which in turn stimulates other industries to offer employment. It maintains the buying power of those directly or indirectly employed, it creates a market for goods, and it enables the workers directly or indirectly employed to buy the products of other industries. Finally, construction work in a period of industrial depression, when costs are lower, is economical.

The essential steps in any general program are to plan construction work, private or public, long in advance with reference to the cyclical movement of business, and in the case of public works to pass the necessary legislative appropriations when facts about the trend of business show that it is sound policy to spend money for such purposes.

If it were possible for a smaller percentage of public works projects to be undertaken in periods when private industry is active, so that more work might be done during periods when private industry is slack, the government would not compete with private industry to so great an extent in times of prosperity and this would not be a factor in the inflation of money rates, prices of materials, and employment.

The Committee calls attention to the need for careful drafting of laws to insure a policy of reserving public works projects, if this is to be done effectively. The need for fixing the responsibility for the preparation of such plans in advance, the importance of securing the release of the projects at the right time by legislation, and the provisions for financing should be considered with special relation to the obstacles, legal and others, which the particular public authority would have to overcome. While the difficulties are great, everything which can be accomplished in this way is valuable.

The recommendations were followed, in part, in the business depression with which the Conference dealt. "In general," says Otto J. Mallery, "American cities in 1921-22 made the greatest effort on record to expand public works during an unemployment period."² Among the expedients which Mr. Mallery advocates, for the facilitation of the execution of public works at such times, are: (1) the long-

¹ *Business Cycles and Unemployment*—report of a committee of the President's Conference on Unemployment, including an investigation made under the auspices of the National Bureau of Economic Research, 1923, p. xxvii. See also Benjamin M. Anderson's *State and Municipal Borrowing in Relation to the Business Cycle*, Economic Bulletin of the Chase National Bank, New York, June, 1925, pp. 5-7.

² "The Long-Range Planning of Public Works," by Otto T. Mallery, in *Business Cycles and Unemployment*, *op. cit.*, p. 243.

range planning of capital expenditures; (2) the authorization of contingent bond issues to be sold only in periods of depression; (3) the making of appropriations for the accumulation of special reserves for the execution of public works at such times; and (4) the creation of a "public works reserve fund."¹

The same recommendations were again advanced following the financial panic of October-November, 1929, by the conference of business and governmental agencies which was called together by President Hoover to consider the means of maintaining continued business progress.

ECONOMIC ARGUMENTS FOR BORROWING

The improvements made possible by loans may increase the wealth of the community many times in excess of their costs and the costs of the loans incurred for them, by making possible a great expansion of industry, commerce, and residential wealth. Yet the taxpayers may be unable to spare from their incomes all the sums required for the financing of these works, or for some reason or other are unwilling to sustain the sacrifices involved. The economies of financing permanent improvements directly from taxation become, in such cases, purely theoretical; and the issue really is whether to execute the improvements with the aid of loans or not to execute them at all.

Borrowing places at the disposal of the community, in part at least, funds which it could not possibly secure by means of taxation—funds in the possession of its wealthier citizens which could not be reached in any other way.

Borrowing increases the community's resources for productive work. A community that refuses to borrow may be condemned to a slow development, as is private enterprise that refuses to avail itself of the facilities of modern credit. In the words of Professor Seligman, "public credit may be considered even more important than private credit. Just

¹ The subject of a "public works reserve fund" is discussed below in Chapter VII.

as private credit is socially useful or productive of wealth and welfare, so public credit may be at least equally beneficial. Its utility consists in the fact that, through borrowing from those in possession of the capital rather than taxing all the members of the community, whether or not they have the capital, it lessens subjective costs or sacrifices and puts at the disposal of the government those services in the community which can be most easily dispensed with."¹

The advocates of an extreme "pay-as-you-go" policy usually emphasize the need for economy and retrenchment in public expenditures; whereas the advocates of an extreme all-loan policy emphasize the benefits to be derived from the execution of new public works. This controversy simmers down, in at least one of its aspects, to an issue between a policy of cautious, slow progress and that of rapid forward strides; between extreme conservatism and extreme enthusiasm. But extreme conservatism may be as harmful to the community's development as extreme enthusiasm and too great haste. Hence, the blending of borrowing with taxation may be necessary in the financing of capital expenditures, to save the state or community from falling into either pitfall.

THE BORROWING POLICY OF THE FEDERAL GOVERNMENT

If it be impossible, in the long run, to avoid borrowing altogether, and if it be unwise to attempt to do so, how does it happen that the federal government has managed to finance its permanent improvements with little if any borrowing, as stated above in Chapter I?

The explanation is found in the peculiar nature of the national expenditure and revenue systems. Those for war have been practically the only extraordinary expenditures. All other expenditures have been considered as ordinary. The government was expected to borrow in times of war and to pay off its debt—certainly not to borrow in addi-

¹ "Loans vs. Taxes in War Finance," *Annals of the American Academy of Political and Social Science*, January, 1918, p. 62.

tion—in times of peace. The revenue system consisted exclusively, until recent times, of customs duties and a few indirect taxes. The revenues from these sources during periods of prosperity not only were ample for all purposes of government, and took care of all the necessary permanent improvements without burdening the people, but were even yielding large annual surpluses. There was no excuse for borrowing under these circumstances. The federal government has very seldom ventured on any very large programs of improvement, other than those connected with its military and naval establishment, which could not be taken care of by its ordinary revenues. In the few instances in which it has ventured on such programs, it had to resort to loans. It had to borrow also in some cases to place its monetary system on a sound basis.¹

The financial system of the federal government has been devised so as to confine borrowing to war periods, during which expenditures become very high, and to times of business depression or other extraordinary times, during which revenues decline. The loans incurred at such times are applied to cover the deficits in the annual revenues, whatever may be their cause.

This system is, however, now undergoing a substantial change which may vitally affect the future policy of borrowing by the federal government. Direct taxation, in the form of the income tax, having been established and having become the principal source of federal revenue, the people have become cognizant of the burdens of federal taxation and have begun to object to high tax rates. The rate and volume of taxation are more subject to control than formerly. At the same time large projects of expenditure for permanent improvements, such as for flood prevention, are being forced on the government. It is not at all unlikely, therefore, that the government may have to modify its policy some day and begin to borrow for permanent improvements of large scope.

¹ See discussion and footnote on p. 18.

CHAPTER VI

THE TERM OF LOANS

One of the worst features of the traditional borrowing policy is the long term for which the loans are generally incurred. The term of bonds averages between twenty-five and thirty years, with the thirty-year term the favorite, and the fifty-year term the maximum. Special assessment bonds are issued for terms ranging between five and ten years, but these are in a class by themselves.

THE DISADVANTAGES OF LONG TERMS

The real reason for the long term is the desire to reduce to a minimum the amounts to be raised immediately from taxes, and thus to shift the larger proportion on the future. As stated in Chapter I, the theory is that the generation which uses the improvement should pay for its cost.¹ The theory that the term of the loan should, in each case, more or less equal the life of the improvement financed from the loan, in order that this result may be achieved, seems sound and just when superficially considered and conceived in terms of single improvements; but totally unsound and unjust when subjected to a comprehensive analysis and viewed in terms of the totality of the improvements and in relation to the entire government plant.²

¹ A number of economists share this view, Secrist (*op. cit.*, p. 115) for example writing: "1. Debts should be paid within such periods as experience and prudence dictate, with the aim in view to deal fairly as between the present and the future. 2. When properties are of a kind which depreciate and will need to be renewed at frequent intervals, the loans should be paid within their life or utility. 3. Where properties are of a more permanent character, the periods which they are allowed to run should be proportionately longer, approaching a perpetual debt for such things as land, parks, etc."

² For typical provisions of bond laws of various states in estimating the period of life of various improvements, see *A Model Bond Law*, supplement to *National Municipal Review*, February, 1927, and Lane W. Lancaster's *State Supervision of Municipal Indebtedness*, 1923.

Perpetuates the Debt. When a government borrows for an addition to its plant and fixes the term of the loan commensurate with the life of the improvement, the property created with the aid of the loan is consumed when the debt is amortized. If the government borrows again in order to replace the property, as Francis Oakey points out, it really refunds its bonds.¹ If it keeps on borrowing for replacements, fixing in each case the term of the loan commensurate with the life of the replacement, the government is continually refunding its bonds. It is involved in the creation of a perpetual debt. Every part of its property is mortgaged to the extent of the cost of the property. It does not possess any net wealth except in so far as its property may gain in value in excess of its cost and of the indebtedness created for it. It becomes in reality "a tenant rather than an owner, since the interest payments and expenses of repair may be considered equivalent to rent."²

The scheme of paying off the loan during the life of the improvement, by means of specified annual appropriations from taxes or other current revenues, is really a substitute for the policy adopted in commercial practice of setting up reserves for the depreciation of the plant by means of specified annual payments from the revenues of the enterprise. If such annual depreciation charges are reinvested in the enterprise, then by the time the old plant has gone out of existence an equivalent amount of new capital is created which offers justification for the existence of the old debt. Thus, though the old debt is never liquidated under this policy, it represents new property. Under the policy adopted in governmental practice, however, the annual payments are applied to the redemption of the loans—not to the financing of new property. The financing of new property is accomplished by new loans which take the place of the

¹ Francis Oakey, *Principles of Government Accounting and Reporting*, p. 401.

² *Ibid.*

old loans. Thus the debt, which under this policy is perhaps also never liquidated, is composed really of new loans, and the equation between capital and indebtedness is secured in another way.

Bars the Creation of Wealth. As the costs of the total property created or acquired would at all times be offset under this policy by an equal amount of indebtedness, the government could not possibly create or acquire property in excess of its borrowing capacity. If its borrowing capacity is 10 per cent of assessed valuations, then this 10 per cent represents the limit of its public works. As the assessed valuations generally represent not more than one-third of the real wealth of the people comprising the state or community, the government would in reality be limited in its total permanent public works to about 3 per cent of the wealth of its citizens. With such a limit, the government finds it difficult to satisfy the multifold demands of the people for public improvements.

As new loans are incurred under this policy so much faster than the old loans are liquidated, the eventual exhaustion of the borrowing powers is inevitable.

Of course some improvements last longer than the bonds from which they were financed; but this policy makes inevitable the accumulation of a heavy debt, and the exhaustion of the government's borrowing powers and ability to execute improvements.

Bears No Relation to Needs. The life of the property bears no relation to the need for additional properties. Bonds are not liquidated quickly enough, under the plan of gauging their term by the life of the improvement, to make possible the meeting of the need for new properties by means of new loans. There is a fundamental discrepancy in this plan, between the trend of borrowing determined by the requirements for new improvements, and the trend of payment of the loans determined by the wear and tear of the old properties. Not until the trend of repayment of

the loans is reconciled with the trend of the expenditures for which the loans are made, will continuity of borrowing powers be assured.

The life of the improvement is unimportant from the point of view of the production of new improvements. To the taxpayers, the important fact is not that a water supply will last fifty years, but that, fifteen or twenty years hence, they may have to undertake the building of another water supply, to cope with the increasing consumption of water, and in each case will have to find the money to finance it. Likewise, the fact that, soon after the completion of the Holland Tunnel under the Hudson River, the building of another tunnel or bridge uniting another part of New York City with New Jersey must be begun, in order to meet the needs of the growing traffic, and that money for this purpose must be found, is of greater importance to the people, in fixing the term of the bonds authorized for these purposes, than is the fact that the tunnel or bridge will each last a century or more.

If these facts are ignored, bonds are issued in such cases for terms of forty or fifty years. Consequently, fifteen or twenty years later, when the execution of the new works must be undertaken and bonds issued for them, the bulk of the indebtedness incurred for the old works is still outstanding, and a double indebtedness results.

Unrelated to Ability to Pay. The life of the improvement is unrelated to the ability of the state or community to pay. The term of the loan is fixed, under the traditional borrowing plan, in total disregard of the government's ability to pay. Frequently a government which could well afford to borrow for a short term, and could pay the debt off quickly without unduly burdening the taxpayers, nevertheless borrows for a long term because of a catholic belief that a long term is justified by the probable long life of the improvement. The practice is directly contrary in this respect to the one considered sound in the private household. There we generally try, when we borrow, to pay the debt or mort-

gage off as quickly as possible. We do not stretch the payment over the entire life of the object if we can avoid doing so.

This practice ignores the possibility that, within so long a period as forty or fifty years, the fortunes of the state or community may change, and it may find itself less able to meet the annual debt charges. Obviously, in a contingency of this nature, the fact that the improvements still exist will not help the state or community to meet the debt against them.

I. G. Gibbon, an authority on British local government, says:

The risks of the ups and downs of the community make it wise that any loan period should not be overlong, and that it should be below what might be granted if regard were paid only to the probable useful life of the work in itself. This risk is larger in some kinds of communities than in others, but it exists in all of them.¹

Unrelated to State of Debt. The life of the improvement is in no way related to the state of the government's debt, but the latter must be taken into account in fixing the terms of new loans. If the government has a large unused margin in its debt-incurring power and its outstanding bonds do not run for very long terms, it may issue new bonds for long terms without injuring its ability to incur new loans in the future. In the opposite case, it must follow a different policy and issue new bonds for relatively short terms so as to be able to issue new debt in the near future and to secure the maximum possible use of its small debt-incurring margin. It must not, in such case, encumber its debt margin with long-term bonds and permit its remaining credit to become "frozen" for many years. Most of the cities which have reached the debt limit and can incur but little new debt every year are in that position largely because they have kept on borrowing for long terms after such borrowing ceased to be wise.

¹ "Borrowing for Local Authorities," *Public Administration*, January, 1928, p. 23.

Unrelated to the Bond Market. The life of the improvement has no relation to the term for which the investor may want to loan his money, and which determines to a large degree the marketability of bonds. According to Francis Oakey, this factor should really be the determinant of the life of the bonds. "The attempt to make the term of bonds approximately equal to the life of the property to be acquired is impracticable," he says. "The determination of the term of the bonds must depend, not upon the life of the property to be acquired, but upon the conditions under which the bonds may be sold to the best advantage; these conditions have nothing whatever to do with the life of the property."¹ This overemphasizes the importance of the bond market. It cannot be accepted as the *sole* guide. Many bond-buyers prefer a long-term investment, and long-term bonds can often be sold at a lower rate of interest than short-term bonds. Yet this is not a sufficient reason for issuing bonds for long terms.²

The life of the improvement has nothing to do with the interest rates which determine the costs of borrowing. Yet the interest rates must be considered by the borrower in fixing the time of repayment of the loan. When the interest rates are low, the government may be justified in borrowing for long terms. When interest rates are high it should preferably borrow for short terms. The fact that the properties to be acquired by the loan will have a long life cannot alone justify borrowing for a long term.

¹ Francis Oakey, *Principles of Government Accounting and Reporting*, p. 402.

² One of the most striking illustrations of the fallacy of fixing long terms on the bonds, and thereby putting obstacles in the way of a possible earlier repayment, is afforded by the instance of the federal government which issued, during the year 1877-1880 under the funding act of 1870, \$737,-000,000 of thirty-year bonds, in exchange for some of the maturing shorter-term, war obligations. Because of large surpluses which began to accumulate in its treasury it became able, almost immediately after issuing these bonds, to begin retirement of the debt. Yet the only way it could do so was by purchasing the bonds in the open market and paying a premium of 25 to 30% above their par value, and thereby wasting millions of dollars. (See D. R. Dewey, *Financial History of the United States*, p. 430).

The long term for which money is usually borrowed pyramids the debt and creates long strings of debt charges extending far into the future. The longer the terms, the slower is the turnover of borrowed money and liquidation of each successive loan, and the smaller the volume of work which can be financed by borrowing during a given period.

If a government has reached the debt limit, the scheme of issuing bonds for long terms tends to keep it at the point of distress.¹

SHORTENING THE TERM OF LOANS

On short-term loans, borrowed money has a rapid turnover. Each loan and series of debt charges affect the borrowing and taxing powers for only a short time and, when amortized, make room for the incurrence of other loans and the payment of other series of debt charges. More money can be borrowed and more work can be accomplished with short-term loans than under a policy of borrowing for long terms. Future improvements are not blocked to the same extent. The total interest charges are less because the term of the loan is shorter. Each investment is cleared of debt at a much earlier date. Each generation more nearly takes care of its own work. There is less danger of bankruptcy or default.

Nevertheless, in very few governments have the terms of loans been materially shortened; and then, for the most part, only when the life of the improvement is shorter. The old principle that the term of bonds should correspond to the life of the improvement has, with few exceptions, been retained.² In some states and cities a more rapid retire-

¹ See the writer's chapter on "Debt" (Chapter VII) in *The Finances and Financial Administration of New York City*, 1928.

² The committee on municipal borrowing of the National Municipal League has retained in its *Model Bond Law*, as the only guiding principle in the fixing of the terms of the bonds, the provision that "bonds shall be issued for a period not to exceed the probable life of the improvement." It made one concession, however, to the idea of a shorter term by providing that "in no case shall bonds be issued for a longer period than forty

ment of the debt and turnover of borrowed money have been obtained, in part by the use of serial bonds, under which larger annual instalments for amortization of the debt are required. This result, however, has been purely incidental, the desire for a simplified administration of the debt being everywhere the real reason for the substitution of serial bonds for sinking fund bonds. The need for shortening the term of bonds still remains.

The Pioneer Work of Massachusetts. The outstanding example of a change in policy regarding term of loans is found in Massachusetts. The traditional policy of governing the term of loans by the life of the improvement has been retained in that state, but the terms have been greatly shortened.

The longest term for municipal bonds permitted by the Massachusetts law is thirty years, as compared with fifty years permitted in most of the other states, and sixty years in some states. The average term of bonds in Massachusetts (excluding special assessment bonds) is below twenty years, as compared with a thirty-year average in most other states. The thirty-year terms are permitted only for the purchase of land for parks and water supply systems, and for the construction of reservoirs. For the acquisition of land for public buildings, the construction of the buildings themselves (including school houses), the improvement and extension of reservoirs, the construction of filter beds, the laying of stand pipes, and the construction of bridges, the bonds are limited to twenty-year terms. Bonds for laying or relaying water mains of more than six inches in diameter are limited to fifteen-year terms, and those for the construction of roads, to ten or five-year terms, depending on the character of the pavement.¹

years." (See *Model Bond Law* issued by National Municipal League in 1927.) This law was adopted in Minnesota in 1927 and was used in several states in 1927-28 as an aid in drafting new provisions on municipal borrowing.

¹ See the Massachusetts law of municipal indebtedness, 1923, pp. 47 and 66, and Lancaster, *State Supervision of Municipal Indebtedness*, pp. 46-48.

The municipal indebtedness of Massachusetts has been kept at an unusually low level. It amounted, in 1924, to an average of only 3.14 per cent of the assessed valuations in the case of the cities, 2.19 per cent in the case of other municipalities of more than 5,000 population, and 0.97 per cent in the case of those of smaller population.

The term of the state loan for the soldiers' bonus of 1919 was fixed at five years. The debt charges were paid by means of special taxes for the redemption period. "Contrast with this record," says Henry L. Shattuck, "that of the other states which have borrowed two to three hundred million dollars, mostly in long-term bonds on which heavy interest and sinking fund payments must be made annually for years to come. In the financing of the soldiers' bonus, the record of Massachusetts is unique."¹

The term of the 1924 metropolitan sewerage loan, north system, amounting to \$650,000, was fixed at ten years; and that of the 1925 metropolitan water improvement loan of \$230,000, at four years. It was formerly the custom of the state to borrow for these purposes for forty years. These are parts of a comprehensive plan of reduction in the terms of the metropolitan district loans adopted in accordance with the recommendations of the chairman of the ways and means committee in his budget speech of 1924, quoted above. He urged that "no borrowings be made for terms exceeding twenty years, with the possible exception of large revenue-producing improvements, such as those for water supply and transportation; that borrowings for acquisition of parks and reservations, and construction of sewers, be limited to fifteen years; that borrowings for original construction and acquisition of parkways and boulevards be limited to ten years; that all other borrowings be limited to five years."²

As the application of this policy to metropolitan district loans is recent, its effects on the state and district indebted-

¹ *Massachusetts Legislative Documents*, 1924, House no. 1321, p. 3.

² *Ibid.*, p. 4.

ness cannot yet be fully appreciated. But that its effect will be salutary cannot be doubted.

The Practice in Other States. The state of Colorado, by a general law, now requires the payment of all public debts in less than twenty years. Only a few exceptions are permitted by special legislation; these refer to water bonds which can be issued for twenty-five year terms, and refunding bonds which can be issued for thirty-five year terms. The usual limit is fifteen years.¹

In Ohio, several laws were enacted during the years 1920-1925, as reported by the legislative division of the Ohio State Library, "the general effect (of which) has been to shorten the terms for which bonds may be issued, although the purpose was to standardize and regulate, rather than shorten the terms." Bonds for paving of roads and streets are limited to ten years; for construction of buildings, fifteen to twenty-five years; for general water works improvements, sewerage and sewage disposal works, and bridges, twenty-five years; for acquisition of real estate, thirty years. In Michigan, an act of 1925 limited all county and municipal highway bonds to a maximum term of fifteen years; and prohibited the issue of bonds for any purpose except rapid transit and sewerage systems for terms in excess of thirty years. In both Ohio and Michigan, however, the principle of gauging the terms of the bonds by the life of the improvement was retained, special clauses in these laws providing that, for all purposes not mentioned in the act, the terms are to be fixed by the authorities in accordance with the probable usefulness of the improvement, but not exceeding the maximum period.

Kansas, by an act of 1925,² reduced the maximum term for all future municipal bonds from thirty to twenty years. Vermont, by an act of 1925,³ limited all municipal bonds,

¹ Lancaster, *State Supervision of Municipal Indebtedness*, p. 47. See Colorado laws of 1919, chapter 200; section 6810, Colorado statutes; and laws of 1921, chapter 237.

² Senate bill 393.

³ 1925 laws, no. 140.

except those issued for municipal forests, to a maximum term of twenty years.

In certain states, bonds are limited to short terms by constitutional provisions which in some cases are half a century old. Thus, both Illinois and Wisconsin limit municipal bonds to a maximum term of twenty years. The Wisconsin constitution, however, makes an exception for Milwaukee, which can issue bonds for a maximum term of fifty years. Maryland, by its constitution, limits all bonds to a maximum term of fifteen years.

BASIS FOR DETERMINING THE TERM OF BONDS

The terms of the bonds should be fixed, first of all, in accordance with the financial resources of the government, its probable future requirements, and the state of its debt; secondly, according to the conditions of the bond market; and, thirdly, according to the economic conditions of the community or state and the trend of interest and prices.¹ Of course, the terms should not exceed the life of the improvements, but there is no need of fixing them separately in each case. When consolidated bonds are issued, the terms should not exceed the average life of all the classes of improvements to be financed from them.

The primary question in fixing the term should always be how quickly, not how slowly, can the community or state pay off the debt; how short, not how long, should be the term of the bonds. Due consideration should be given to the tax revenues which can be used for the payment of the loan; and the savings which could be effected in the total costs of shortening the terms of the loans. The terms should be much shorter than those commonly fixed at present. Ten, fifteen, and twenty-year terms should suffice in most cases.

¹ For a more detailed treatment of the weight which should be given to these factors, see Luther Gulick's discussion in *Municipal Finance* by A. E. Buck and others, pp. 477-480.

CHAPTER VII

THE CONSOLIDATION AND LONG-TERM BUDGETING OF LOAN FUNDS

Some states and cities follow a definite debt program. Instead of issuing bonds for various objects, independently of each other and without regard to other objects which may be claiming attention, they authorize a consolidated bond issue for the several objects covered in the program. Instead of maintaining a separate fund for the amortization of each bond issue, they set up a consolidated amortization fund. Instead of permitting different departments to spend the borrowed funds as they please, they set up a central control over all such expenditures.

Philadelphia follows such a plan in part. Bond issue programs are prepared and submitted there to referendum vote annually. Two bond issue programs were adopted, for example, in 1925; one covered ten objects and involved an aggregate expenditure of \$29,750,000; and one covered seven objects aggregating \$4,750,000. New programs are formulated and submitted before the old ones are executed. In devising each year's program, no attempt is made to ascertain what the next year's program and authorization may have to be. At no time is there any long-range planning. While constituting an advance over the plan of considering each bond issue individually, and at any time of the year, this arrangement still falls short of the ideal.

LONG-TERM FINANCIAL PROGRAMS

Several cities have attempted to follow a more comprehensive plan and to devise a borrowing program covering a period of years. In some, the work was done, in the first instance, by the city manager, a committee of the city council, or other governing body of the city. In others, it has

been done by a citizens' committee appointed by the mayor, or by an altogether unofficial agency, such as a committee of the local chamber of commerce or a local research organization.

The planning authority or agency usually proceeds as follows: First it ascertains the probable needs of the municipality for permanent improvements for a period of future years, using for this purpose information submitted to it by the various departments of the city. Next it determines which, among these needs, are most urgent and should be satisfied first; which among them can wait, and in what order they should be financed. It also determines the maximum amount of improvements which can be financed each year and the exact mode of financing them. Next it submits the program for approval to the governing body of the city and, in some cases, where the law governing the issuing of bonds requires it, for approval by a vote of the people. The city authorities are sometimes left free to modify this program and to supplement it from time to time with new and necessary projects which could not be anticipated. Provision is sometimes made for annual revision of the program and for the addition to it of new estimates covering an additional future year.¹

The city of Kalamazoo is generally credited with having been the first to prepare and adopt such a program. Minneapolis prepared one before (in 1916) but it covered only the construction of schools. Newark had a program prepared in 1919, but never adopted it. Kalamazoo's program, prepared in 1920-21, covered a period of five years and authorized an expenditure of \$1,500,000 for sixteen objects.² The original plan called for a consolidated bond issue of that amount, but was changed in favor of a plan of financing the program almost entirely from current taxation.

¹ For a comprehensive description of the sound procedure followed in Detroit, see C. E. Rightor, *The Preparation of a Long-Term Financial Program*, Municipal Administration Service, New York City, 1927. For a comprehensive discussion of the entire subject of long-term financial planning, see A. E. Buck, *Public Budgeting*, pp. 171-176 and 352-356.

² *Kalamazoo Gazette*, November 23, 1920.

St. Louis adopted in 1923 a ten-year improvement program including twenty different objects with an aggregate expenditure of \$87,372,500.¹ Bluefield, West Virginia, adopted a three to five-year program in 1923, involving a bond issue of \$850,000, the proceeds of which were to serve several street and sewer projects, the construction of a municipal building, and the establishment of new parks and playgrounds.² The development of the program followed the adoption of the city manager form of government.

Detroit adopted in 1927 what constitutes the largest and most comprehensive improvement program yet enacted by any city in this country. Its program, covering a period of eight years, called for an expenditure of approximately \$700,000,000.³

Cincinnati adopted in 1927 the plan of programming bond expenditures of all the three governmental units operating in the city—the city government proper, the school district, and the county. The scheme involves annual planning five years in advance. Current and capital financing are integrated, the program being based in large part upon an annual forecast of the normal trend of operating expenditures and charges on account of existing debt and an estimate of the probable growth of assessed valuation. On the basis of this data a computation is made of the tax rate necessary to cover these expenditures and of the additional rate which may be levied for the expansion of activities and issue of new debt.⁴

Schenectady developed in 1928-29 a ten-year permanent improvements budget. The work was done by a Capital Budget Commission of four officials and three civilians, appointed by the mayor in July, 1928, and assisted by the

¹ St. Louis Bond Issue, 1923, *Official Facts and Figures*, pamphlet issued by sponsors of the bond issue. The original plan included twenty-one objects, but one of these was disapproved by the voters. A more modest program, covering six objects and involving an aggregate expenditure of \$3,793,000, had been adopted in St. Louis three years previously.

² 1923 Report of the City of Bluefield, West Virginia.

³ C. E. Rightor, *op. cit.*

⁴ Cincinnati Bureau of Municipal Research, Report no. 15, May, 1929.

local Bureau of Municipal Research. The passage of a local law providing for a permanent capital budget commission was recommended.¹

A number of other cities have prepared or are preparing such programs. Among these are Milwaukee, Providence, Buffalo, Dallas, and Berkeley, California. New York, New Jersey, California and other states have developed and adopted five to ten-year programs of road construction, park development or construction of institutional buildings.

The federal government has adopted a ten-year program of construction of public buildings. This program, prepared by the Treasury Department and enacted by Congress into law in its first form in 1926 and in a revised and more expanded form in 1928, calls for an expenditure of nearly \$300,000,000 for such construction over the ten-year period. The annual outlays are limited to a maximum of \$35,000,000.

The long-term program may take the form of a mere statement that would have no legal status and would serve the authorities only as a guide; or of a statute or ordinance which would have a binding effect until amended or repealed; or of a statute or ordinance submitted to the people and approved by them at a referendum. Even with referendum adoption, the program may not be altogether final, for it would merely confer authority upon the legislature or city council to make the specified expenditures and to raise the specified funds within the given period, without making it obligatory upon them to exercise that authority to the full extent; furthermore, it may be supplemented by additional programs ratified by subsequent referenda, covering in part the same period but containing additional items. What form the program should take must necessarily depend upon the particular conditions.

What are the advantages of the consolidated bond issue over the bond issue for a single purpose? It coördinates the borrowing powers and permits the budgeting of ex-

¹ See "Schenectady's Long-Term Financial Program," by Harold I. Baumes in the *National Municipal Review*, August, 1929.

penditures and loans. It simplifies debt administration. It permits a better control over the expenditure of the funds. The bonds rest on the total credit of the state or municipality, and not on the value of the particular property acquired by the loans. It is in accord with sound business practice. Private corporations do not issue separate bonds for each individual purpose and there is no reason why the government should ordinarily do otherwise, unless the bonds are secured by certain specific revenues or properties.

CONSOLIDATED LOAN FUNDS

In Philadelphia. By an act of the legislature of Pennsylvania, a consolidated loan fund was established in Philadelphia in 1915.¹ To this fund the proceeds from the sale of all bond issues are paid and from it are made all the authorized expenditures. This system has been followed since 1915 and its results have been most satisfactory. Robert M. Patterson, chief accountant of the Philadelphia Bureau of Municipal Research, says:

The creation of the consolidated loan fund has enabled the city to maintain much smaller aggregates of loan cash on hand than would have been possible under a continuance of the former plan, and very considerable savings have resulted from this closer adjustment between loan cash balances and loan cash needs. Thus when the fund was created, several millions of dollars that had lain idle for a number of years became available for making payments on account of appropriations of other loan money, and a very considerable postponement of the issuance of further loans resulted.²

The principle of pooling funds was carried still further in 1919 by the enactment of a law permitting the merger of the general fund and the consolidated loan fund.³

¹ The law (chapter 846, P. L. 1915) reads in part as follows: "That in cities of the first class all money being the proceeds of loans heretofore or hereafter issued by such cities shall constitute a fund to be called the 'consolidated loan fund' from which consolidated fund it shall be lawful to appropriate and use money for any purpose for which any loan or loans may have been authorized or issued by such cities, provided, however, that nothing in this act shall permit the appropriation or use of money for any purpose in excess of the amount authorized or borrowed for that purpose."

² Letter to the writer, dated May 25, 1925.

³ The law (chapter 581, P. L. 1919) reads in part as follows: "It shall be lawful from time to time to advance any money in the general fund

Consolidation of loan funds in this instance does not go beyond the consolidation of balances. It affects in no way the terms of bonds, which invariably are fixed in Philadelphia at fifty years. Nor does it affect the other phases of borrowing.

In Great Britain. A definite step forward in the comprehensive consolidation of loan funds has been marked by the publication by the Institute of Municipal Treasurers and Accountants in 1929 of a model scheme for adoption by local authorities. This model scheme has been approved by the Minister of Health and proves suitable for general adoption by local authorities promoting individual schemes, although certain variations are required in the case of some schemes in order to meet special local circumstances.¹

A local authority operating a consolidated loan fund scheme, approved by the Minister of Health by virtue of powers contained in a local act, is free from the requirement to distinguish in allocating capital to the executive departments between capital raised by way of stock, mortgages and so forth.

The model scheme not only consolidates all forms of borrowing, but it does more than that. For example, it allows the use of sinking funds for new capital purposes without any of the legal complications otherwise intervening, for under the model scheme the annual contributions for the redemption of capital expenditure automatically find their way back directly to the "pool" from which the capital was in the first case advanced.

The "capital pool," says I. G. Gibbon, principal assistant secretary of the Ministry of Health, "is quite a modern method of making use of the financial resources of the

for any purpose for which a loan shall have been authorized, and the corporate authorities shall not be required to issue any bonds authorized to be issued until it is necessary to repay to the general fund such advances or to replenish such loan fund or funds. It shall also be lawful from time to time to make temporary advances, in anticipation of the collection of revenue, from any loan fund to the general fund."

¹ *Financial Circular* of the Institute of Municipal Treasurers and Accountants (Incorporated) for June, 1929.

authority, merging therein all capital moneys including loans, reserve funds, expense accounts and superannuation funds, and placing in the same fund all redemption and sinking fund moneys and feeding from it the several services according to their requirements.”¹

R. A. Wetherall, borough treasurer, Swansea, England, says: “Such a consolidated loan fund or capital pool envisages borrowing by a local authority as a more or less continuous process—a necessary incident of municipal activity. If a local authority borrows money on twenty different sanctions in a year, it exercises not twenty different rights, but the same right twenty different times. In the same way a loan raised two years ago for the purpose of providing a public park is directly connected with a loan proposed to be raised today for a public bath, or public elementary school.²

The city of Edinburgh, Scotland, has operated such a consolidated fund since 1894. The city of Leeds, England, established one in a limited form on April 1, 1925, and, in 1927, a complete scheme, as an experiment upon which the model consolidated loan fund scheme then under discussion between the Ministry of Health and the Institute of Municipal Treasurers and Accountants could be based.

The London County Council is reported as having maintained a partially consolidated loan fund for years. The borough of Torquay and nine others were reported as having secured, in 1923-25, the necessary statutory powers to establish a “city pool” and eleven others were reported, at the Institute’s convention of 1925, as seeking similar powers. Since that time most local authorities promoting private legislation have taken the opportunity of securing power for some measure of consolidation.

¹ Paper read before the convention of the Institute of Municipal Treasurers and Accountants of England, June, 1925. *Financial Circular* of the Institute, June, 1925, p. 220.

² “A ‘Real’ Consolidated Loan Fund,” paper read before 1923 convention of the Institute of Municipal Treasurers and Accountants of England, *Proceedings*, 1923, p. 196.

Among the advantages of a consolidated loan fund, A. Carson Roberts of the Ministry of Health lists the following:

(1) It frees (the) financing from all its present trammels. The financing costs are reduced in several ways: (a) a loan pool can be fed in the best market at all times, and experience has proved that the average rate of interest thus paid is materially lower than that which has to be paid when ear-marked loans are arranged (b) it throws open large possibilities in the way of loan conversion when interest rates are low (c) with a well managed pool, it is possible to provide in advance the estimated requirements of several future years. (2) It provides the authority with the best and most convenient way of employing not only its sinking funds, but also its various other capital funds—pension funds, insurance funds, reserve funds, and special capital receipts which call for investments. (3) It can also provide the best means of employing revenue funds. If each main cash account transfers to the pool any balance on hand in excess of its requirements, considerably more than bank interest may be earned on these balances. (4) It provides the authority's own rate payers with a safer and cheaper means of investing their savings than they would otherwise have at hand (5) It removes all need for any statutory powers to transfer sinking funds, to new capital purposes (6) All need for any rule as to the valuation of transferred stock is also removed. (7) The accounting work can be brought to the ultimate maximum of clearness and simplicity: (a) Each borrowing account obtains the full advantage of a series of loans covering the exact period of its borrowing powers and paid either on the simple instalment or the annuity system, as may be decided by the authority. . . . You are freed from all that horrible complication of accumulating sinking funds—"that mass of barbed wires and fishhooks." (b) Each borrowing account is also enabled to obtain its loans just when it needs them.¹

Central Control of Loan Funds. In some instances when a city adopts a capital outlay program, the city manager exercises a certain degree of control over the preparation of the program and the actual disbursement of the borrowed money. In the case of the \$100,000,000 bond issue authorized in November, 1925, in the state of New York, Governor Smith prepared a program of expenditure for each annual instalment of \$10,000,000 and submitted it to the legislature for approval, even though it was not required by the law. He also assumed supervision over the disbursements of the funds.² Expenditures from the St. Louis consolidated bond

¹ The Institute of Municipal Treasurers and Accountants of England, *Proceedings*, 1923, p. 221.

² The constitutional amendment merely provided that the funds were to be disbursed under appropriations made by the legislature subject to the governor's veto.

issue of \$75,000,000 can be made only on appropriation by the board of aldermen.

A comprehensive system of central control is proposed under the English plan of a consolidated loan fund or capital pool. "The central control, which will be the finance committee," says Mr. Roberts, "will make all the contracts with lenders and handle all transactions with them. It will also make all the necessary advances to borrowing accounts out of its general pool, which will be the loan fund. It will meet all charges for interest and expenses as they fall due, and apportion them between the borrowing accounts on some equitable system."¹ The same finance committee also has charge of the other expenditures and revenues of the city.

The central financial control may be vested either in the chief executive of the state or municipality, or in a special finance commission or board, which could be composed of the chief financial officer, the leading members of the legislative body, and perhaps specially elected members. The terms of the latter could be made to overlap the terms for which regular members of the administration are elected, so as to assure a certain continuity of policy in the commission. The commission should have authority to prepare the long and short-term programs, and also to supervise the expenditure and management of funds.

PUBLIC WORKS RESERVE FUND

It has been suggested in Chapter V that a part of the money necessary for a larger projected improvement, or program of improvements, could be accumulated in advance by a special tax levy, or by other revenues, so that the amounts to be raised by taxation during the period of construction would be lessened and no need for borrowing would arise. But how can this be done if the taxpayers are not yet convinced of the necessity of the improvements? Obviously, they would strenuously object to any such ac-

¹ *Op. cit.*, p. 221.

cumulation of funds, demand a reduction of their taxes instead, and vote against the administration at the next election. On the other hand, if citizens' support for the project has been secured, the work must be started at an early date. It is too late then to begin to accumulate funds. The citizens are generally unwilling to wait long for the execution of an improvement which they have approved.

If the undertaking of a project in three, four, or five years hence has been definitely approved by the people, and its actual construction may take another three, four or five years (which is frequently the case with large improvements), its financing can be spread over the entire six to ten-year period, and the raising of the necessary funds can be begun at once by means of a special tax levy or appropriation. Such policy would obviously be wise unless the costs of financing other improvements in progress do not make it prohibitive.

A revolving fund can be built up by means of specified annual appropriations. Such funds have been established in some American cities for financing street paving. In operating such a fund the government is really borrowing from itself. Those who propose the establishment of a large revolving fund usually make the reservation that it is to be used for the financing only of those capital expenditures "which are of a constantly recurring nature." They do not contemplate the financing of other capital expenditures from such a fund.

The Milwaukee Savings Fund. In 1923, the city of Milwaukee, under a special authority from the legislature, launched a scheme for the accumulation of a savings fund which will enable the city, in forty years or thereabouts, to be free from debt, and to finance all its permanent improvements without further borrowing. The fund, known as "the public debt amortization fund," is to be made up from the annual interest earned by the city from instalments on street improvements; from one-third of the annual interest earned by the city on all its other funds; from any

additional sum which the council may see fit to direct to it; and, finally, from the compound interest which the fund would earn on these amounts. "Assuming that a minimum of \$250,000 is received by the fund annually and the investment of same is maintained at an interest rate of $4\frac{1}{2}$ per cent," writes the city comptroller of Milwaukee, "the fund will grow so that . . . in forty years it will amount to \$28,794,013, which is approximately the amount of the city's present outstanding bonded debt; in fifty years it will have grown to the sum of \$47,927,012. At this point, the city will have appropriated, over the fifty-year period, \$12,650,000, and the fund will have earned or increased through the accrual of interest in the amount of \$35,277,102, the interest earned being almost equal to three times the principal investment."¹

The law provides that when the fund amounts to three-fourths of the bonded debt of the city, three-fourths of the annual interest earned by the fund may be used for the payment of the debt charges or for financing permanent improvements. The fund itself, according to the plan, will never be used for the financing of permanent improvements. The interest alone, and only a part of it, will be used for the purpose. The fund will, therefore, in reality merely present a regular supplemental revenue for the financing of these expenditures. It will not supply an *emergency fund* for the financing of unusually large expenditures of this nature and will not, therefore, entirely eliminate the necessity of borrowing.²

¹ Louis M. Kotecki in the *Journal of the International Association of Comptrollers and Accounting Officers*, July, 1926, p. 16.

² The town of Conneaut, Ohio, was reported in 1926 as also accumulating a fund for future needs. "Five years ago," says the *Cleveland Press* in an editorial entitled "A Town Out of Debt," May 1, 1926, "the sheriff would have been justified in nailing a 'notice to creditors' on the doors of Conneaut's City Hall," as it had only \$42.50 in its sinking fund. The administration decided from then on to spend less money than the city earned. Every expenditure was drastically cut. "Fire and police payrolls were slashed, water department extensions were forbidden. Public improvements for which there was no urgent need were sidetracked," and a ban was put on the issuance of any more long-term bonds. "Expenditures in 1921

Chicago is also accumulating a fund for future transit construction from the annual payments made to the city by the elevated companies. More than \$40,000,000 has already been accumulated in this way.

To accumulate a reserve fund during times of prosperity, for the execution of public works during times of depression, is a plan of much merit; but fundamentally, it differs little from the plan of issuing, during a period of depression, short-term bonds to be redeemed during a period of prosperity. Furthermore, it would be quite impossible to foretell the duration of a period of depression and the extent of the public works which must be executed. It would be unwise, consequently, to depend entirely on these reserves to supply all the funds necessary for public works construction. Borrowing may have to be depended on, even where such reserves are maintained to furnish the balance of the funds.

were \$117,302. In 1925, they were cut to \$53,925. The result: Conneaut has completely delivered itself from current debt, and has gone into the bond-buying business. Today (1926), it has \$152,206 in bonds free from any obligations."

CHAPTER VIII

BORROWING COMBINED WITH TAXATION

Some states and cities have attempted in recent years to evolve a policy by which borrowing is combined with taxation, in some form or other, for the financing of permanent improvements.

FINANCING REVENUE-PRODUCING IMPROVEMENTS BY BORROWING

A number of authorities on public finance (Bastable, Pegou, Henry C. Adams and others) suggest a financial policy combining borrowing with taxation, based on the distinction between revenue-producing improvements, and non-revenue-producing improvements. To finance the first class, they recommend borrowing; to finance the second, taxation. The government of England is purported to be following this policy and some of the municipal officials in England favor its adoption in the cities.¹

The committee on state and local taxation and expenditure of the United States Chamber of Commerce favors this plan of financing. In its report on *Capital Expenditures*, issued in October, 1928, the committee advocates the financing from current revenues of capital expenditures of an annually recurring amount, except those for self-supporting enterprises.²

¹ Mr. Arthur Nettleton says: "The general state practice (of the English Government) is to pay directly out of taxation for works of a capital nature other than those of a revenue-producing character. The amounts so charged for new works year by year are by no means inconsiderable. There can be no question as to the soundness of this policy . . . and it is all the more illogical, therefore, for the state to have one policy for itself and to enforce another policy upon local authorities, particularly when the borrowing policy makes in so many cases unsound finance." *Proceedings*, 1927, of the Institute of Municipal Treasurers and Accountants of England.

² For text of the committee's recommendation, see p. 118, below.

The belief that revenue-producing enterprises should be financed by borrowing is based on two arguments: (1) loans incurred for such capital outlays produce revenue for the government and are not a burden on taxes; and (2) such loans make possible the financing of revenue-producing enterprises without heavy taxation or, sometimes, even any taxation.

The first argument contains an implication, whether consciously or unconsciously expressed, that since loans for revenue-producing enterprises are not a burden on the taxes, they are not a burden on the community itself. This implication is fundamentally false. Loans for revenue-producing enterprises are just as burdensome on the community as loans for non-revenue-producing enterprises, the differences being only in the form in which the burdens are borne and in the way in which they are distributed among the members of the community. The loans of the first kind are paid by the community through the service charges imposed by the enterprises, and the loans of the second kind are paid through taxes. For it is the community itself which in most cases is the user of the services of revenue-producing enterprises. This is certainly true in the case of water supply, street railways, and electric light and gas plants, which serve a large number of consumers. It is not true in the case of docks or markets whose revenues are obtained from a few lessees, or sometimes toll bridges which serve to a large extent citizens from other places.

The second argument, which implies that taxation is the only alternative to loans in the financing of these enterprises, is valid only in so far as the procurement of the initial capital necessary for the establishment of these enterprises is concerned. If the capital is not furnished by a loan, it must come from taxes, since the enterprise is not yet in existence and does not yet earn any revenue. But the argument is totally invalid in so far as subsequent capital outlays are concerned. Once the enterprise has been established and has begun to function, a new source of

capital for future outlays is obtained; namely, the revenue which the enterprise earns. The prices for the services or goods furnished may be so fixed as to supply not only the amounts needed to meet operating charges and cover the debt service, but also to furnish a part of the capital necessary for the expansion of the plant. The alternative to loans, in this case, may be higher prices for the services or goods in question and not necessarily a higher rate of taxation.

The taxpayers often are inclined to look more favorably upon loans payable from revenues of enterprises which they call "self-supporting debt" (a highly misleading term in application to debt payable by the community) than upon loans payable from taxes which they call "non-self-supporting debt." This discrimination by the taxpayers can be explained in the same way as their preference for financing expenditures through service charges to financing them through taxes in general; expenditures and loans financed through service charges do not seem as burdensome as those financed through taxes, for they are paid in part by members of the community who do not pay taxes and by outsiders who use the services. Some expenditures and loans, in fact, may not cost the taxpayers a penny if financed in this way. The construction of subways by means of loans payable from fares, for example, will cost a large taxpayer, who never rides on a subway, nothing, and one who rides on it occasionally, very little. To the first taxpayer, the debt and the whole enterprise would really seem "self-supporting"; to the second it would also seem to be so, though in reality he would be contributing, through the service charges, toward its support.

Whether the expenditure is "revenue-producing" (financed by service charges) or "non-revenue-producing" (paid from taxes) has nothing to do with the question of whether borrowing should be resorted to or not. Granting that the expenditure in either case is necessary, the issue is the same: is it more economical to pay immediately from

current resources, or is it more economical to defer payment? The issue in either case is the distribution of burdens between the present and the future—a fact which writers on the subject seem generally to have overlooked.

Manifestly, if economic financing and a fair distribution of burdens between the present and the future are important in the case of improvements financed from taxation, they are just as important in the case of improvements financed from service charges. If an all-loan policy is uneconomical and dangerous in the one case, it is just as uneconomical and dangerous in the other. If recurrent expenditures should be financed from taxes in the one case, they should be financed from service charges in the other case. To maintain differently is to defy logic.

FINANCING RECURRENT EXPENDITURES FROM CURRENT TAXES

In recent years there has been some agitation for financing certain recurrent expenditures by means of current taxation, and for restricting borrowing to expenditures which occur at irregular intervals. Financing by current taxation is urged especially for school and road construction.

The outstanding example of such a plan is found in the state of Massachusetts. Its advantages are thus explained by Theodore N. Waddell, director of municipal accounts of the Massachusetts state department of corporations and taxation:

I do not mean to say that every outlay should be reflected in the current tax rate, but rather that annually recurring costs, or that portion of it which may be representative of annually recurring costs, should be so reflected. In rapidly growing cities, or in cities entering into very large improvements occasioned by changed conditions, it would be unwise to attempt to finance all of such improvements wholly from current revenues, as it would result either in an intolerable tax burden on the community or else would unreasonably retard growth; but local governments should be on their guard lest their enthusiasm for public improvements carry them beyond their ability to pay them. The urgent need of today is a reduction in the tax load and a check on the increase of debt, since the ease with which such tax exempt securities can be floated frequently results in a reckless expenditure of money. . . .

If this practice is carried on by our cities and towns, and the annual recurring costs, whether they are for building a street, sidewalks, or even a school building in a large municipality, are paid from the tax levy, it would mean an enormous saving to the cities and towns.¹

This policy has been justified on the ground that "each generation has its problems to meet. With increase in population and changes in mode of life and public needs, new and unforeseen expenditures will be required. What seems permanent and lasting today may be out of date in a few years." Recurrent and ordinary expenditures should consequently be financed on the so-called "pay-as-you-go" plan. To undertakings, however, "which require large expenditures at irregular intervals, the pay-as-you-go policy cannot be strictly applied."²

The city of Boston adopted this policy in a limited way, in 1916, by applying it, under special legislative act, to its expenditures for school construction. Beginning with the year 1916, it raised all the funds necessary for the purpose from current taxation, financing in this way, in the course of twelve years (1916-1927), \$27,000,000 worth of school construction without resorting to borrowing.³

The school debt of Boston is shrinking. "The amount of the school debt, in 1925, was \$15,000,000," says Rupert C. Carven, auditor of the city, "and in the course of a few years when a great part of this outstanding school debt will be retired, it may be the policy of the city either to construct new highways or to install new sewerage systems from taxes, as both of these projects are included in the so-called constantly recurring appropriations from bond issues."⁴

In 1923 this policy was made obligatory by the state for all cities and towns.⁵ Borrowing for any object costing less than 25 cents on each \$1,000 of assessed valuation was

¹ Address before the annual convention of the International Association of Comptrollers and Accounting Officers, Rochester, N. Y., July, 1925.

² Budget Speech of Henry L. Shattuck, chairman of the ways and means committee. *Massachusetts Legislative Documents*, 1924, House no. 1321, pp. 1 and 4.

³ Letter to the writer by R. C. Carven, April 16, 1928.

⁴ Letter to the writer, dated August 25, 1925.

⁵ Massachusetts laws, 1923, chapter 338.

prohibited. In the case of objects costing more than 25 cents on each \$1,000 of valuation, borrowing was permitted only for the excess.

The state began to apply the policy of financing all recurrent expenditures from current taxation to its own operations in 1918, and very soon was doing so more extensively than Boston. It has never established, however, any definite rule for the determination of what a "recurrent" expenditure really is.¹ For the construction of highways, it used the receipts from motor vehicle fees, which by the year 1925 yielded \$10,000,000 annually. Construction of public buildings, reforestation, and other recurrent improvements, were financed from the general fund.

In the course of six years (1919-24) permanent improvements amounting to more than thirty million dollars were thus financed without borrowing.

The only bonds issued by the state of Massachusetts during 1920-26 were projects executed by the metropolitan commission. The debt charges for these loans, however, are assessed on the metropolitan district and do not constitute a charge on the state. The bonds thus issued (excluding an issue of \$8,000,000 supported from rents of the Cambridge subway) aggregated only \$3,000,000.

Beginning with 1925, the new policy was applied also to the metropolitan district. The following arrangements were made for the works authorized in 1925: the state's share of

¹ In 1924 the chairman of the house committee on ways and means recommended, in the case of the expenditures of the metropolitan commission, that any expenditure below \$1,000,000 be considered recurrent and financed without loans, and that in the cases of larger expenditures loans be incurred only for the excess over that amount (*Massachusetts Legislative Documents*, 1924, House no. 1321). In 1927, with reference to state expenditures proper, he urged the application of the same rule as has been applied to the cities and towns, saying in part: "Therefore if we are to apply to our state expenditures the same rules we impose upon our cities and towns, we should borrow only for such portion of any items as exceeds \$1,981,489 (25 cents on each \$1,000 of tax valuation in the state). Without further argument, this excludes all building projects provided for in the present bill, for the largest single item is \$1,500,000, or only about 18.7 per cent on each thousand of the tax valuation of the state." (*Massachusetts Legislative Documents*, 1927, House no. 1051.)

the cost of the northern and southern arterial boulevards, amounting to about \$500,000, was to be paid from motor vehicle receipts; the state's share of the costs of repair of the Harvard Bridge (\$180,000) was to be paid by means of a special tax on the district outside of Boston proper; and several other minor items for boulevards, parks, and district lighting systems, the largest of which amounted to \$160,000, were likewise to be financed from current taxation. No loans whatsoever were authorized for these expenses. In February, 1926, the chairman of the house committee on ways and means was able to report regarding the financing of the projects of the district: "Now borrowing by the Commonwealth for boulevards and parks has been wholly discontinued, and the policy has been firmly established of providing for all except major water and sewerage improvements from the annual metropolitan tax assessment."¹

As a result of the new policy, the debt of the state, which amounted to \$33,658,551 in 1917, was reduced to \$14,458,704 by the end of 1927. The debt charges were reduced from about \$3,855,000 in 1918 to \$2,604,437 in 1927.² The metropolitan district debt was likewise reduced, though not in as spectacular a fashion, from about \$57,000,000 in 1920 to \$48,976,090 by the end of 1926. In 1927, however, it began to increase again on account of the incurrence of new loans for the construction of a new water supply.³ Theoretically the Massachusetts policy tends to assign borrowing to the function of meeting extraordinary needs. In actual practice, however, the tendency in state financing has been to eliminate borrowing altogether.

The weakness of the policy seems to be that it furnishes no safe guide for the determination of what needs are ordinary and what are extraordinary. The distinction between "recurrent" and "irregular" expenditures does not offer a

¹ *Massachusetts Legislative Documents*, 1926, House no. 1125.

² *Massachusetts Legislative Documents*, 1928, House no. 1010. By the end of 1928, the debt was to be \$12,850,000 and the debt charges were to amount to \$2,396,181.

³ The metropolitan district debt increased in 1927 by \$1,160,000.

clue to this question. An expenditure which is "recurrent," in the sense that some amount of it is made each year, fluctuates and sometimes becomes extraordinary in amount. If every such expenditure is to be financed from current taxation, in some years the burden on the taxpayers will be very large. If the distinction be made according to the *amount* of the expenditure, and if only a portion of the expenditure up to a certain *recurrent amount* is financed from current taxation, such result is in a way obviated. But even under this arrangement, the policy is far short of the ideal, for it is based upon the movement of individual expenditures, *i. e.*, upon partial situations. Why should not the fluctuations of various classes of expenditure be set up against each other? Why should not the deficiencies in the amount of one class in one year be balanced off against the excess in another class in that same year? This is not done under the Massachusetts policy.

The arrangement by which any expenditure above a certain amount is considered "extraordinary" and is financed by borrowing, and any expenditure below that amount is classed as "ordinary" and is financed from current resources, is altogether unsound. The city or state may have three expenditures of \$750,000 each in one year, and ten expenditures of \$300,000 each in another year. It will be more difficult to finance the large number of smaller expenditures from current taxation than the small number of larger ones; yet in the first instance it would not be allowed to borrow, whereas, in the second instance, it could borrow. It would be very easy for the government officials to circumvent any rule established under this policy, and to twist the policy according to their own fancy.

The experience of Massachusetts shows that the burdens are not distributed evenly from year to year. The school expenditures in Boston have fluctuated;¹ and so have the

¹ The appropriations fluctuated between \$712,000 and \$987,000 during the years 1916-1920; jumped to \$2,668,000 in the year 1920-21; fell to zero in the year 1923-24; rose to \$1,000,000 in 1924-25, to \$4,500,000 in 1925, and to \$5,999,000 in 1926; and fell to \$3,500,000 in 1927.

state expenditures and appropriations for public buildings. There is evidence that the policy results, in a measure, in the curtailment and postponement of desirable expenditures. "Having got rid of the borrowing habit," says Henry L. Shattuck, "the danger is that we may postpone for too long needed capital expenditures for improvements."¹ In a speech, delivered in the legislature following the vetoing by the governor of several items for permanent improvements in the 1925 budget, he charged that, by vetoing these amounts, the executive shifted burdens on the future.

Some plans for financing so-called current expenditures without borrowing provide for the establishment of revolving funds, by means of specified annual appropriations, from which such expenditures could be made. Such revolving funds equalize the amounts which must be raised from taxes annually to meet these expenditures and enable the authorities to take care of the larger expenditures which occur in some years without larger tax appropriations. Arthur Nettleton, senior assistant comptroller of the London County Council, advocates the establishment of such funds by the English municipalities under the name "equalization account."

"The method adopted by many authorities of fixing a definite rate or a definite amount of rate money to meet expenditures of a capital nature is a big step along the right road, provided that the rate or the amount so fixed is somewhat in the neighborhood of the average capital outlay required. If not, it is still valuable as a first step, but the endeavor should be to increase it gradually, until it does meet requirements. . . . The method just referred to contains within it the germ of an equalization account for expenditure of a constantly recurrent nature."²

The committee on state and local taxation of the United States Chamber of Commerce in its 1928 report favored

¹ Letter to the writer, dated September 18, 1925.

² *Financing of Capital Expenditures*, by Arthur Nettleton; paper read before the Institute of Municipal Treasurers and Accountants of England, June, 1927.

the financing of recurrent capital expenditures (other than those of a self-supporting nature) from current revenues. The committee has given the following broad and scientific statement of the problem:

Whether or not a proposed capital expenditure is of recurrent character depends in some measure upon the size of the spending unit which must finance it and upon the rapidity with which that unit is growing. In large cities, and even in some not so large, a certain amount of capital improvements must be financed each year. A city may build a city hall one year and a hospital the next. Neither of these particular expenditures is likely to recur more frequently than every thirty or forty years, so that from the standpoint of purpose they are non-recurring. But these two, and a sewer which the city may build the third year, a stadium the fourth, and a school the fifth, comprise, in the aggregate, a series of expenditures of an amount which recurs annually.

Thus, on the average, a city may have to meet a fairly level charge each year for various capital improvements. That charge may be \$50,000 or \$5,000,000 a year, depending upon its size and rapidity of growth. When, year in and year out, a city must finance a given amount of capital expenditures annually, it can estimate its capacity to pay that amount by gauging its sources of revenue and, with a view to permanent economy, place such recurring amounts of expenditures upon a pay-as-you-go basis. If, during one fiscal period, the amount of necessary capital expenditures far exceeds the average expended for recurring amounts of capital outlays in preceding years, the city may properly issue bonds to cover the excess, making the term of the bonds as short as possible.¹

According to this plan the annual capital expenditures of the state or city are to be considered as a whole, instead of by individual classes, and are to be financed from current revenues up to a certain normal aggregate annual amount. This system is obviously more consistent and scientific than the other "pay-as-you-go" plans.

BORROWING GAUGED BY CURRENT RESOURCES

Another plan of combining borrowing with taxation is that by which loans are confined to the excess of the amount that can be raised from current taxation.

Isolated instances of this plan are found in Massachusetts, the state division of municipal accounts being in part responsible for its adoption. In a number of cases, when asked by a municipality for advice on how to finance a

¹ United States Chamber of Commerce, *Capital Expenditures*, pp. 18-19.

particular improvement or group of improvements, the division has computed the potential increase in the tax rate if certain proportions of the costs were paid from current taxation and money borrowed only for the balance, and the potential saving in interest charges under such plans. The division has then helped the authorities to select, on the basis of this data, the most favorable plan of financing.

A more comprehensive and consistent application of this plan is found in Notts County, England. There a certain tax rate for expenditures for permanent improvements is established, and borrowing is permitted only if the year's aggregate expenditures of this nature are in excess of that rate.¹

Another variety of the same plan is that whereby the authorities determine the amounts which can reasonably be raised from current tax sources over a period of years, in connection with a five or ten-year program of expenditures. The amount which should be borrowed (within the legal debt limit) is the difference between this amount and the total cost of the program. Those framing the program, under this plan, determine the yield which a certain tax rate, considered as reasonable (or fixed as maximum by law), at a certain estimated rate of increase of assessed valuations, will produce during the period; the amount which can be raised from special revenues; and finally, the remaining margin which must be raised by borrowing. This plan was followed in part by the mayor's committee of Detroit in developing the ten-year program of improvements for that city which was adopted tentatively in 1927.

Wylie Kilpatrick proposes a modification of the plan for fixing the proportions to be raised from taxes and loans, respectively, in a five or ten-year permanent improvement program. He advocates that the amounts to be raised from taxes should be fixed in the program as *minimum annual*

¹ *Municipal Journal and Public Works Engineers*, London, August 28, 1925, p. 1261.

amounts; that the authorities should be directed to appropriate each year, in addition, any surplus in the treasury; that borrowing should be permitted only to the extent of the balance of the year's expenditure not covered from these two sources; and that the program should be voted on by the people so as to make compliance with its terms compulsory on the administrative officials. In this way, he says, all uncertainty about the grant of future appropriations would be removed.¹ This proposal is really an extension of the bond referendum to taxes. It advocates a combined bond and tax referendum.

FIXING DEFINITE PROPORTIONS BETWEEN BORROWING AND CURRENT TAXATION

It has been the practice of the Massachusetts legislature, since 1923, to require, in every special act authorizing a municipality to borrow in excess of its debt limit, that before borrowing it must appropriate from the taxes an amount equal to 10 per cent of the authorized loan.² This requirement of an immediate payment of a part of the cost brings home to the authorities the costs and burdens involved and is effective in preventing unnecessary expenditures. It also helps to reduce the debt charges. But it does not regularize the expenditures.

In 1925, a plan was proposed in New York City by the board of transportation for future subway construction, by which 35 per cent of the cost would be financed from current taxation, 25 per cent from special assessments, and 40 per cent by loans. It met with an unfavorable reception, especially from the real estate interests.

¹ "Is there a New York State Policy for Financing Improvements? The Illusory Issue of Borrowing *vs.* Pay-As-You-Go," *Bulletin of the National Tax Association*, June, 1928, pp. 268-78.

² See, for example, chapter 57 of the laws of 1927 authorizing the city of Taunton to borrow for the construction of schools up to \$200,000 in excess of the debt limit. The extremely low debt limit in Massachusetts necessitates the passage there every year of a large number of such special acts.

BORROWING GAUGED BY THE RELATION OF ANNUAL DEPRECIATION TO ANNUAL REPLACEMENTS AND ADDITIONS

Francis Oakey proposes a plan of combining borrowing with current taxation, under which the ratio would be determined by the relation of the annual depreciation of the plant to the total year's expenditures for the replacement of worn-out properties and the addition of new properties. Current taxation, he says, should cover at least the normal annual share of the costs of replacement. Borrowings should take care of additions to property and abnormal replacements. But he thinks a safer policy would be to let current taxation also take care of a part of the latter costs. He illustrates his proposal as follows:

Having established carefully considered rates of depreciation, the total annual instalment of the reserve for depreciation may be arrived at. This total annual instalment represents the year's share of the burden of the cost of replacements. It is the least amount which must be provided by the tax levy to pay for the replacement of properties. If an amount is expended less than this, the year is not paying its share of the burden.

To illustrate concretely how the annual instalment would be considered in the making of the budget, let us assume that the annual depreciation instalment is \$1,000,000; let us assume also that it is estimated that during the ensuing year replacements will be necessary, costing \$2,000,000, owing to the fact that an abnormal number of properties have come to the end of their lives. Let us assume also that it is estimated that new and additional properties will be necessary costing \$500,000. Under these conditions, the tax levy of the ensuing year should be made to supply at least \$1,000,000 for replacements and additions. It might be permissible, although not advisable, to meet the other million dollars of replacements required out of the proceeds of sales of bonds and to meet the cost of additions needed also out of the proceeds of sales of bonds, but a more conservative procedure would be to make the tax levy of the year bear at least a portion of the cost of additions and a portion of the cost of abnormal replacement. It is when the costs of replacements that represent the *year's proportionate burden* are met out of the proceeds of sales of bonds that a policy is entered upon which will result in the accumulation of a heavy debt and impose heavy interest charges, and finally may result in cutting off entirely the borrowing power.¹

This plan, although nowhere as yet adopted, would check to a large extent the issuance of bonds for the financing of replacements, which is equivalent to the refunding of

¹ Francis Oakey, *Principles of Government Accounting and Reporting*, p. 403.

bonds, and would conserve the borrowing powers for meeting the costs of actual additions to property. It is more comprehensive in scope than any of the plans hitherto discussed.

All the methods described above check excessive borrowing, and most of them tend to regularize the burdens involved in the expenditures for permanent improvements. They constitute a substantial advance over the traditional policy of borrowing.

CHAPTER IX

BORROWING COMBINED WITH TAXATION— A NEW PROPOSAL

The author believes it possible to combine borrowing with taxation in the financing of permanent improvements, to take care of both the normal and the abnormal expenditures, while avoiding the exhaustion of the borrowing and taxing powers and leaving the way open for the financing of future improvements.

The first feature of such a policy must be the planning of the expenditures for permanent improvements in the aggregate, as suggested above, instead of by individual items or classes. Essential to such planning is the preparation of a long-term improvement program covering a five or ten-year period as discussed in Chapter VII, and a short-term program covering a year. The establishment of a central controlling authority over expenditures and over the means of financing them is also an essential part of a sound borrowing policy.

The reasons for the establishment of aggregate planning and financing of permanent improvement expenditures and central control over them have been in part indicated in the previous discussion. All expenditures of this nature are interrelated, since they are financed ultimately from the same sources. Only by establishing such a central control can the authorities assure a proper balance at all times between the expenditures of this kind, the resources of the state or municipality, and the satisfaction of all its future as well as its present needs.

BORROWING FOR THE EXCESS OVER A NORMAL RATIO OF EXPENDITURES

The distinctive feature of the proposed plan is a new method of determining the proportions in which taxation

and borrowing should take care of expenditures for permanent improvements. The proportion is determined with reference to the total capital expenditures for the year, and in accordance with the idea that taxation should take care of the normal annual amount of these expenditures and that borrowing should be resorted to only for financing the excess over that amount.

It has been stated in Chapter II that the expenditures for permanent improvements and the expenditures for current services are interrelated; and that they parallel and complement each other to a large degree, both being necessary for the satisfaction of the needs of the community. The expenditures for current services are relatively steady and reflect more closely the normal growth of the community or state than do the expenditures for permanent improvements, which fluctuate periodically. It should be possible, therefore, to measure the level and progression of the expenditures for permanent improvements and their periodic fluctuations in relation to the level and progression of the expenditures for current services. Investigation shows that the ratio of these expenditures to expenditures for current services is different in different states or cities, depending on the rate of growth. The average ratio has been 52.3 per cent in cities of more than 30,000 population (over a period of twenty-six years) and 30.1 per cent in the forty-eight states, over a period of twelve to fifteen years. Tables XII and XIII show these ratios from year to year and also their average for the period in states and cities as a group and individually.

Determining the Normal Ratio. The average ratio of the expenditures for permanent improvements to expenditures for current services during a past period of about ten or twenty years can be accepted as representing a normal ratio for a state or city. This ratio can be used in determining the normal amount of its expenditures for permanent improvements which should be financed from taxation during the ensuing year. This scheme could be improved by the inclusion of the debt charges in the computation so

that it would finally be as follows: the normal amount of capital expenditures would be determined for the given municipality or state on the basis of the normal ratio of

TABLE XII

PERCENTAGE RATIO OF EXPENDITURES FOR PERMANENT IMPROVEMENTS TO EXPENDITURES FOR CURRENT SERVICES¹

Year	146 cities of more than 30,000 population	New York City	Boston	Detroit	Los Angeles	San Francisco
1902	...	56.2	38.8	50.9	139.7	7.9
1903	57.5	79.8	47.3	45.6	68.9	6.5
1904	...	79.9	45.8	42.4	106.0	29.5
1905	56.0	69.6	45.9	50.3	108.4	37.5
1906	...	66.1	37.2	44.8	112.1	18.9
1907	60.8	70.6	32.5	60.7	132.1	31.7
1908	...	74.6	30.4	61.1	208.7	47.9
1909	59.0	60.1	16.9	60.8	206.6	47.8
1910	...	59.2	22.8	41.1	219.6	83.5
1911	60.6	72.0	21.6	46.3	137.8	80.1
1912	...	52.6	24.8	44.5	195.8	83.9
1913	54.1	...	...	52.1	157.1	77.4
1914	...	...	...	...	...	...
1915	53.0	37.5	26.3	65.7	108.5	89.1
1916	...	21.5	19.5	83.7	96.6	58.6
1917	41.6	24.9	14.2	108.9	71.7	56.7
1918	...	18.9	22.7	72.5	34.6	45.6
1919	43.5	15.8	15.2	64.8	38.7	26.4
1920	...	...	...	...	...	...
1921	...	20.4	16.5	...	49.2	37.6
1922	43.2	20.7	19.0	131.6	134.9	47.1
1923	43.0	26.4	29.6	75.9	64.5	63.2
1924	51.2	42.9	27.5	60.6	100.7	64.9
1925	56.7	44.4	34.5	63.9	119.3	56.2
1926	52.0	29.8	30.4	74.5	142.2	47.3
1927	56.0	35.0	22.2	80.9	128.0	53.9
Average...	52.5	46.9	27.9	64.5	120.0	50.0

these expenditures, plus debt charges, to the total costs of government,² during the preceding ten or twenty years;

¹ For certain years no figures are available.

² The total costs of government can be defined as the sum total of the expenditures for current services, expenditures for permanent improvements, and debt charges.

the normal ratio of expenditures for permanent improvements would be financed from current taxes, and only the amount in excess would be financed by means of loans.

The plan may be illustrated as follows: suppose the average ratio of the expenditures for permanent improvements, plus debt charges, to the total costs of government, over a period of years, is found to be 50 per cent, and the ratio for the current year, 60 per cent. Then it will be established

TABLE XIII

PERCENTAGE RATIO OF EXPENDITURES FOR PERMANENT IMPROVEMENTS TO EXPENDITURES FOR CURRENT SERVICES¹

Year	The forty-eight states	New York	Pennsylvania	Massachusetts	Illinois	Ohio	California
1913.....	15.0	53.9	17.9	7.9	4.2	10.7	28.1
1915.....	25.0	74.5	12.6	44.3	11.5	11.5	50.7
1916.....	21.0	59.1	15.2	26.3	16.5	22.1	57.6
1917.....	16.0	...	...	...	...	...	...
1918.....	14.0	29.5	7.6	19.7	12.5	18.5	34.8
1919.....	13.0	27.1	10.7	8.8	8.6	18.3	29.3
1921.....	...	...	...	3.4	59.1	...	21.2
1922.....	34.0	27.6	35.2	29.9	69.2	23.8	42.9
1923.....	39.0	21.5	29.9	17.7	82.5	35.7	39.3
1924.....	44.0	26.0	24.5	15.7	48.5	42.7	29.9
1925.....	48.5	22.0	46.4	14.8	87.3	42.1	16.8
1926.....	46.5	27.7	60.0	16.0	63.3	31.7	25.5
1927.....	45.9	32.4	37.4	17.3	47.2	26.0	21.3
Average...	30.1	36.5	27.0	18.5	42.5	25.7	33.1

that the expenditures for permanent improvements plus debt charges will be abnormally large in the current year. The amount up to the normal proportion (50 per cent of the total costs) will be financed by borrowing. Next year the computation will be repeated. Suppose this time the average ratio is found to be 51 per cent, and the ratio for the year only 40 per cent. Then it will be established that the expenditures for permanent improvements, plus debt charges, will be abnormally low in the current year.

¹ For certain years no figures are available.

The whole amount will be financed from current taxation; no borrowing will be resorted to in that year.

The debt charges should be added to the expenditures, in the computation of the ratio, because they reflect in part the past expenditures for permanent improvements and, in part, the capital charges. Ordinarily, as demonstrated in Chapter V, debt charges fluctuate very little. Any change in the ratio will ordinarily be caused, therefore, by a change

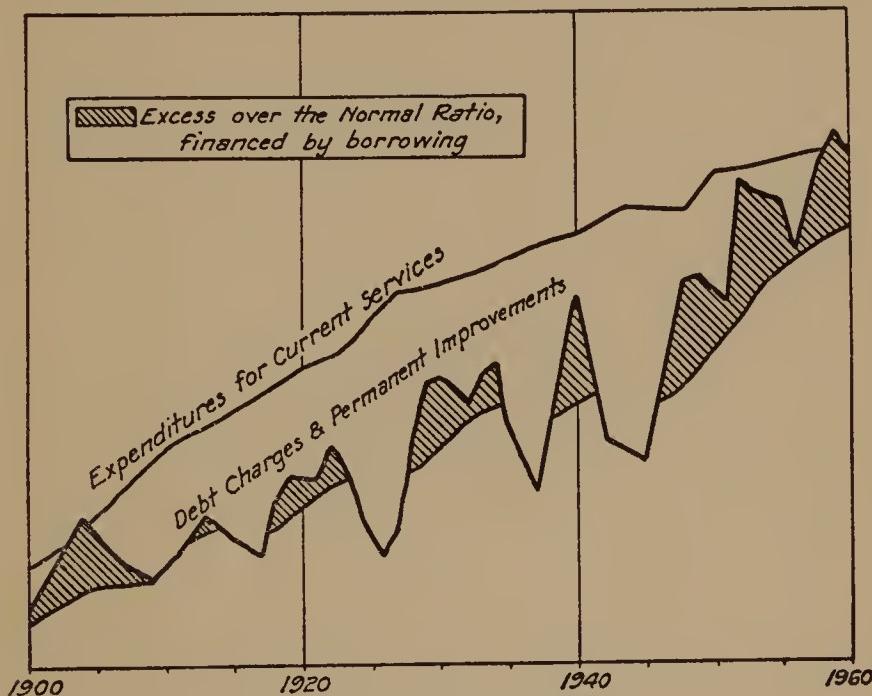


CHART IX—BORROWING FOR THE EXCESS OVER A NORMAL
RATIO OF EXPENDITURES

in the ratio of the expenditures for permanent improvements. However, if the unusual should occur, and if the ratio of the debt charges should change substantially, the combined ratio will reflect the change and correspondingly affect the scheme of financing permanent improvements. An increase in the ratio of the debt charges will increase the amount for which borrowing will be resorted to in that year; and vice versa.

Every year the same computation would be repeated and the proportions in which the municipality or state would

borrow in addition to taxation will be gauged by the extent to which the year's expenditures for permanent improvements, plus debt charges, exceed the normal ratio. The exercise of the borrowing powers will be automatically controlled. If expenditures continue at a high level, the normal quotient would rise accordingly and, step by step, would restrict the borrowing powers. A rapid fall of these expenditures and their continuance at a low level would have the reverse effect. At first borrowing might be restricted; next, as the expenditures continue at a low level, a low normal quotient would be established; then, as the expenditures rise above that quotient, borrowing would again be resorted to. Thus the borrowing powers would be automatically released or withdrawn in accordance with the changes in the year's level of expenditures, as well as in the normal level.

Under this plan, the authorities would obtain an elastic, moving standard which would truly represent the normal trend of development of government at all times, and which would indicate, at any given time, to what extent the expenditures deviate from the normal.

THE OPERATION OF THE PROPOSED PLAN

Each year payments from current revenues would take care of a normal growth of expenditures for permanent improvements; on the other hand, no impediment would be placed in the way of issuance of bonds to take care of expenditures in excess of the normal. Borrowing would thus be restored to its proper function as an extraordinary and supplementary method of financing, devised to take care of truly extraordinary expenses.

The bonds should be general improvement bonds. They should not be earmarked for any special purposes. They should be issued for ten, fifteen, or twenty-year terms, the exact term being determined by the ability of the municipality or state to pay, the probable time when large amounts

must be borrowed in the future, the state of the debt, and, to a limited extent, the character of the particular improvements.

A consolidated permanent improvements fund could be established, into which the amounts raised from current taxation, as well as from loans, would be paid annually, and from which the various special funds or accounts established for various special works could be expended annually.

The plan could be modified in various ways. The average could be taken over a longer period, say thirty years. There would be less fluctuation, under such an arrangement, in the normal ratio within which current taxation would have to be resorted to in the financing of permanent improvements; but, on the other hand, there would also be greater fluctuation in the amount borrowed. Instead of a changing average, the particular government could adopt a fixed average, based upon its own experience and financial condition, or upon the average ratio obtaining in a particular class of municipalities or states. The basis of computation could be the ratio between expenditures for permanent improvements alone and the total costs; or between the former and current service expenditures, plus debt charges; or between the former and current service expenditures alone.

To illustrate the operation of the plan, let us take the instance of a city whose proposed expenditures for the year are as follows:

Current services	\$5,000,000
Permanent improvements	2,750,000
Debt charges	1,250,000
Total	\$9,000,000

and whose expenditures, during the preceding ten or twenty years, bore to each other the following relation:

	Per cent
Current services	60
Permanent improvements	25
Debt charges	15
Total	100

Let us express these expenditures, for the purpose of constructing a formula, by the letters s (services), i (improvements), d (debt), and t (total); indicate the amounts of the expenditures for permanent improvements to be financed from current revenues and from bonds, respectively, by the symbols i^r and i^b ; and express the normal ratio of any class of expenditures by the letter n , with appropriate indication of their character. Then the formula for computing the amounts of the year's expenditures for permanent improvements, to be financed from current revenues, would be as follows (the figures at the bottom indicating the year) :

$$i_{1929}^r = (n^{\frac{i+d}{t}} \times t_{1929}) - d_{1929}.$$

Substituting for these symbols the foregoing figures, the results would be :

$$\begin{aligned} i_{1929}^r &= \frac{40}{100} \times 9,000,000 - 1,250,000 = 3,600,000 - 1,250,000 \\ &= \$2,350,000. \end{aligned}$$

The year's expenditures for permanent improvements would be financed from current revenues, to the extent of \$2,350,000, and from bonds, to the extent of \$400,000 (\$2,750,000 — \$2,350,000).

The formulas expressing the other three schemes of computation mentioned would be :

$$\begin{aligned} i_{1929}^r &= n^{\frac{i}{t}} \times t \\ i_{1929}^r &= n^{\frac{i}{s+d}} \times (s_{1929} \times d_{1929}) \\ i_{1929}^r &= n^{\frac{i}{s}} \times s_{1929}. \end{aligned}$$

The amounts of the expenditures for permanent improvements, to be financed currently, would be \$2,250,000 in the first case, and \$2,083,000 in the other two, leaving \$500,000 in one case, and \$667,000 in the other, to be financed by the issuance of bonds.

With the first three bases of computation, any increase in the debt charges above the normal ratio would reduce the

amount for which borrowing could be resorted to for permanent improvements, and any reduction would increase the amount. With the fourth basis, debt charges are not taken into account and hence have no effect on the result.

A GRADUAL TRANSITION TO NEW PLAN

A number of years should be allowed for transition from the old to the new method of financing permanent improvements. Smaller appropriations from current taxation could at first be used, with an increase in the proportion each year, until, finally, the full average quota could be called for. Thus, for example, it could be provided that during the first year a proportion equal to 5 per cent of the expenditures for permanent improvements should be raised from current taxation; the second year, 10 per cent; the third year, 15 per cent; and so on, until finally, in ten or more years, the normal proportion would be reached, and the plan would be put into full operation.

The plan could be applied at first only to improvements financed principally from general taxation; and subsequently, if at all, extended to improvements financed principally or exclusively from revenues produced by the improvements, or from special assessments levied on the property benefited by the improvement.

BUDGETARY CONTROL

Borrowing in such instances may have to be controlled somewhat differently than in the case of the other improvements, inasmuch as the problems are different. At any rate, it should be controlled centrally, for the city generally is held just as responsible for special assessment debts as for any other debt. If the utility or improvement fails to produce the necessary revenues, or if the city is unable to collect the assessments due from the property owners, the payment of the interest on the bonds and the principal of the debt becomes a charge on the general revenues of the city. Some of the municipal defaults which occurred in the past were caused by the failure of the city to collect the special assess-

ments, and by the refusal of the taxpayers to make up the deficit and pay a much higher tax rate.

Whatever control over special assessments may be devised, it must be correlated in some form or another with the general financial plan or made a part of it. Special assessments should be subjected, in some way or other, to the central financial control as are the other capital expenditures. Permanent improvements will very likely be financed increasingly in the future by assessments upon those who use these improvements or by special levies on those who are most benefited by their execution.¹

Annual Budgetary Statement. The expenditures for permanent improvements and the funds to be raised to meet them should be included in the annual budget under a separate head; or if a separate budget is to be set up for them, a summary statement should present a recapitulation of all the three classes of expenditure and of the funds raised to meet them. This summary statement could be presented as follows:

Expenditures	Income
Current services and operation	Taxes
Permanent improvements..	Miscellaneous revenues and special assessments
Debt charges	Borrowings
Total	Total

A supporting schedule of expenditures and income should be furnished for each of the three items. Thus a complete picture of the total operations of the government for the year would be presented, and intelligent financing would be made possible. At present such a picture is generally lack-

¹ With the increase in the number and magnitude of permanent improvements, the difficulties of financing them from some one source, whether this be taxes, bonds, fees, rents, tolls, or special assessments, are bound to increase. The tendency is likely to be increasingly towards combination of two or more of these resources. The recent plans of Detroit, transit financing in New York City, and the construction of New York-New Jersey bridges are symptomatic of this trend. On the importance of budgeting special assessment funds, see Buck, *Public Budgeting*, pp. 47-48, and Philip H. Cornick, "Special Assessments," *Proceedings*, 1927, the Governmental Research Conference, pp. 106-107.

ing in the budget. It is difficult to determine today what will be the total operations of the government for the year and how much will be spent during the year for permanent improvements. Some items of permanent improvements are found in the budget of current services; others, in the bond fund accounts. To discover these items, and piece them together, requires an expert investigator. Some items of permanent improvements are under budgetary control; but the majority of them are generally free from budgetary control.

The continued exemption of these important expenditures from budgetary control should not be tolerated. Manifestly, waste in capital expenditures and in their financing is just as dangerous as in other expenditures. In fact, it is more dangerous, since waste in this case affects not only the present generation, but also future generations, and cannot be as readily corrected. Budgetary control of expenditures for permanent improvements may not, however, be made as detailed as for other expenditures because of a greater number of uncertain factors. It may have to take a somewhat different form because the expenditures and funds involved constitute a part of a long-term program.

The annual improvement program should be correlated, on the one hand, with a five or ten-year financial and expenditure program, and, on the other hand, with the trend of this expenditure program for the past ten or twenty years; it would thus wisely constitute, under this plan, a continuous program extending from the past into the future. Public officials and citizens at large would thus have the proper conception, which they now generally lack, of the annual task of executing and financing permanent improvements as a *continuous task*.¹

THE EXECUTION OF THE PLAN

Under such a plan, what guarantee would there be that improvements once begun would be completed; that the

¹ For a suggested form of presenting permanent improvement expenditures and funds in the budget, see Buck, *Public Budgeting*, pp. 72-75.

authorities may not refuse next year to go on with these improvements; or that they may fail in any one year, or series of years, to execute a fair proportion of permanent improvements and let the accumulated needs fall on the next administration? Manifestly, if the five or ten-year program has been approved by a referendum of the people, its execution is assured. But suppose it is not so approved? And what if the program has not been properly conceived, and does not include all the improvements which manifestly need to be executed during the period?

The guarantee, if there be any, must be sought in the better information which would be furnished to the people, under this plan, and in the more intelligent interest in the affairs of the government which they would be likely to display as a result. The people would have before them an annual statement which would show, not only the expenditures proposed for the current year, but also those made during the preceding years. They would also have before them a program of expenditures for the next five or ten-year period. They would be able very quickly to discover any failure of the authorities to provide for the completion of the works previously undertaken, or any unjustified change made in the comprehensive program. The mystery which usually surrounds these matters would be done away with. With the ratios presented in the statement, the people would know whether the volume of these expenditures for the year is normal, or below or above the normal; and in the latter event, would form some judgment as to the reason for the deviation. They would not be easily fooled by political tricksters as they frequently are at present.

The fact that the abnormal parts of the costs may be covered, under this plan, by means of borrowing would tend to reduce a tendency unduly to postpone extraordinary improvements.

The central financial control, if properly organized, would tend to assure a certain continuity of policy, and to prevent sudden changes in policy. In states maintaining a special agency for the supervision of municipal finance, that

agency would naturally supervise the operation of the plan in the municipalities and would safeguard the plan against violations.

If the government is dishonest or incompetent, neither this nor any other plan would function. We must assume that the officials are capable and well-intentioned.

No plan of combining borrowing with taxation, in the financing of permanent improvements, can take care of all the possible situations and afford the best possible solution of the problem under all conditions and at all times. It would be an error, consequently, to restrict the officials charged with the management of the finances of the state or city, in their choice of methods of financing, to any one particular plan. They should be given freedom to choose and plan as they may deem most appropriate at the moment, to experiment and, perhaps, to use more than one plan at a time.

What is now needed most, after all, is a clear recognition by public officials that both loans and current revenues should be used in the financing of permanent improvements, and not one resource to the exclusion of the other; the terms of the bonds should be based on a number of factors and not merely on the life of the improvements; and the expenditures and the resources of the government should be planned and controlled in a comprehensive and intelligent way.

There is also need for the establishment in each state or city of a financial planning commission composed of men of intelligence, experience and integrity; and of a central supervisory agency in each state which would help the smaller municipalities to plan and manage their finances intelligently. These constructive agencies would help to make public credit even a more effective instrument for the advancement of the public welfare than it is today.

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